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GROVE CITY, PA.

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Forty-Fourth Year

Grove City College

Catalogue for 1919-1920

*With Calendar and Courses of
Study for the Year 1919-1920*



Grove City,

Pennsylvania

For Information and Catalogues
Write the Registrar,
HAROLD O. WHITE,
Grove City, Pennsylvania.

CALENDAR

1919

September 30, Tuesday	Registration of students.
October 1, Wednesday	Recitations begin 7:40 A. M.
December 15 to December 20	Final Examinations.

1920

January 5, Monday	Registration of students for Winter Term.
January 6, Tuesday	Recitations begin 7:40 A. M.
March 22 to March 27	Final Examinations.
March 29, Monday	Registration of students for Spring Term.
March 30, Tuesday	Recitations begin 7:40 A. M.
June 7 to June 12	Final Examinations.
June 13, Sunday	} Exercises of Commencement Week.
June 14, Monday	
June 15, Tuesday	
June 16, Wednesday	
June 22, Tuesday	Registration of students for Nine Weeks Summer Term.
June 23, Wednesday	Recitations begin 7:40 A. M.
June 28, Monday	Registration of students for Pedagogy Term.
June 29, Tuesday	Six Weeks Term classes begin 7:40 A. M.
August 5, Thursday, and August 6, Friday	State Permanent Examinations.
August 6 to August 14	Bible School.
August 18 to August 21	Final Examinations for the Collegiate Term.
September 28, Tuesday	Registration of students for the Fall Term.
September 29, Wednesday	Recitations begin 7:40 A. M.

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When first elected.		Residence
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HISTORICAL SKETCH

The first effort to provide instruction in college preparatory studies in Pine Grove, now Grove City, was made in 1858 by the Reverend Richard M. Thompson, D. D.

In 1864 the Reverend William T. Dickson became pastor of the Presbyterian Church of Pine Grove. He and his wife, Mrs. Harriet L. Dickson, maintained a private school for the young people of this community. This school was held in their home till the attendance justified the use of a larger room. It was then moved to the Presbyterian Church, where it was continued with but slight interruption for ten years.

In 1874 the school directors of Pine Township built a one-story two-roomed brick school house. To this building those interested in higher education added a second story. In this second story of the public school building in Pine Grove, a select school was started. The committee of the stockholders of this upper room consisted of Joseph Humphrey, president; James A. Gilmore, secretary; N. W. VanEman, M. D., O. P. McCoy, and James Hunter. Isaac C. Ketler, of Blacktown, a village four miles west of Pine Grove, rented this upper room, furnished it at his own expense, and opened the school with thirteen students on April 11, 1876. Twenty-four students enrolled in that term. On August 8, 1876, the first Fall session of the school opened with an attendance of about eighty students. Samuel R. McClelland assisted Mr. Ketler during that session.

In September, 1878, a meeting of the citizens was called to consider the propriety of securing real estate on which to erect an academy building. At this meeting Mr. Robert G. Black presided. In opening the meeting he said, "In view of the very great and vital interest which has brought us together, it is proper and wise that Divine guidance and blessing be sought." The religious spirit of that first meeting of the citizens has characterized the subsequent work of this school.

A finance committee, composed of William A. Young, J. M. Martin, M. D., James P. Locke, James Hunter, and Joseph Humphrey, was appointed to provide means for the purchase of grounds and the erection of an academy building; and to apply for a charter of incorporation for the academy. In August, 1879, the Court of Common Pleas of Mercer County, Pennsylvania, granted a charter of incorporation for the purpose of establishing and maintaining a school in Pine Grove, to be known as The Pine Grove Normal Academy. The aforesaid finance committee, under the charter, constituted the Board of Trustees until their successors, a board of fifteen trustees, were elected on the second Monday of January, 1880. The capital stock of the corporation was at first limited to \$25,000 to be sold in shares of \$10 each. The stock was afterward increased to \$50,000. When four hundred shares had been subscribed, and when twenty per cent of the stock was paid in, the charter was to go into effect. Captain R. C. Craig was appointed to solicit funds. Early in the spring of 1879 the required amount of stock having been sold and twenty per cent of it having been paid in, the finance committee purchased ground and began the erection of a building. The four acres of ground and the building cost about \$10,000. This building was first occupied in December, 1879. From that time on the growth of the institution has been rapid and continuous.

In 1881 the attendance of students had so increased that the demand for larger facilities became imperative. In 1882 another building was erected. It is now a part of the Physics Building. A small dormitory for young women was built by the Reverend W. J. McConkey and was rented to the Academy. Later the College purchased this building, enlarged, and improved it to meet the needs of the Music Department.

By decree of the Court of Quarter Sessions January 4, 1883, the town of Pine Grove was incorporated under the name of Grove City. The first election for borough officers was held February 3, 1883.

In 1883 the annual attendance at the Academy had increased to five hundred students. The work had been mainly the preparation of teachers for teaching and of students for college, although in 1881 and 1882 classes were graduated in a scientific

course of study, and received diplomas and degrees. A collegiate classical course was desired in this institution. The smallness of the expenses at the school made it possible for students of limited means to take such a course. At the request of the Board of Trustees a decree was granted November 21, 1884, which changed the Academy to a college.

In September, 1894, the institution had property valued at \$100,000. It was in debt and needed a more adequate equipment for the work undertaken. It was felt that unless more help could be secured about all that was possible had been accomplished by the institution. There were fears that it would ultimately fail to meet its obligations. Up to this time the funds for the building of the college and for its maintenance had been secured largely within a radius of four miles of Grove City. President Ketler made known the situation to persons of means at a distance from Grove City, among whom were Mr. J. N. Pew, then of Pittsburgh, and Mr. S. P. Harbison, of Allegheny, Pennsylvania.

Messrs. Pew and Harbison advised the elimination of the stock features of the college so that the institution might be incorporated in the class of eleemosynary institutions. Accordingly on November 3, 1894, the stockholders of the College met in the College Chapel and without a dissenting voice voted to eliminate the stock features and to permit the college charter to be amended so as to place the College in the class of public charities with a self-perpetuating Board of Trustees.

The unanimous vote cast in favor of the change is a remarkable honor to this community. There were 256 stockholders representing different religious denominations, and maintaining different attitudes toward the College. They surrendered their entire property right in the College that others, with larger means, might come to the relief of the College and direct its work. It is possible that one negative vote would have legally checked the desired step.

The fifteen trustees who had been previously chosen by the stockholders became petitioners for the amendments which, when granted, would change the entire legal aspect of the College. The final decree making these changes was ordered on

December 10, 1894, a little more than ten years after the College was incorporated. From a stock corporation, in which more than two hundred persons had a property right, it became a corporation in the class of public charities. The former trustees and fifteen others became the legal guardians or trustees of the new corporation.

The management of the institution up to January, 1895, was lodged in a board of fifteen trustees chosen by the stockholders from their number. Five of these were chosen annually to serve for three years. As the stock was held almost conclusively by citizens of the community within a radius of four miles of the College, the members of the board were necessarily local. But to their wise and careful administration is largely due the success of the College. Severely economical where economy could be practiced with safety, generous even to personal sacrifices when the resources of the College were not adequate to its plainly evident needs, investing every dollar of a sadly insufficient income where it would count most for the advancement of the College, in season and out of season they gave the College their time, their money, and their consecrated service. Among the men of Grove City who never failed in their support of the College were W. A. Young, Thomas W. Dale, R. C. Craig, and J. C. Glenn.

On January 2, 1895, the fifteen trustees who had been appointed under the amended charter met in the College, and elected fifteen additional trustees, who should have a part with them in this trust. The trustees present were W. A. Young, T. W. Dale, J. C. Glenn, W. J. McConkey, D. D., John N. White, Newton Campbell, James Simpson, W. J. McKay, A. M. Craig, Perry F. Say, J. J. McGarvey, Joseph A. McDowell, D. F. Courtney, S. F. Thompson, Esq., and Beriah Magoffin, Esq. They unanimously elected the following citizens of Pennsylvania to serve as trustees: J. N. Pew, A. P. Burchfield, W. J. Young, and J. T. Gibson, D. D., of Pittsburgh; Wm. H. McMillan, D. D., LL. D., Samuel P. Harbison, and W. L. Pierce, Esq., of Allegheny; Edward O'Neil, of Sewickley; Judge Christopher W. Heydrick, of Franklin; W. D. Brandon, Esq., and W. E. Oller, D. D., of Butler; J. T. Blair, of Green-

ville; David Gilson, of London, and James B. McClelland, D. D., of Grove City.

On January 31, 1895, at 2 P. M., the thirty trustees by lot arranged themselves into three equal classes; one class to serve till the annual meeting, the Tuesday before Commencement, 1896; the second class till the annual meeting in June, 1897; and the third class till the annual meeting in June, 1898. The Board was fully organized by the election of the following officers: J. N. Pew, president; W. H. McMillan, D. D., LL. D., vice president; J. C. Glenn, secretary; and William A. Young, treasurer.

At the death of William A. Young, the Grove City National Bank was made treasurer. J. N. Pew served as president till his death in October, 1912. At that time F. R. Babcock, of Pittsburgh, was elected president.

Isaac C. Ketler, D. D., LL. D., the founder, was president of the College till his death on July 2, 1913. His successor was Alexander Thomas Ormond, the head of the Department of Philosophy in Princeton University. He held office till his death on December 18, 1915. Weir C. Ketler, the assistant to the president, was elected president on June 13, 1916.

During the more than forty years of its existence there has been constant development in the number, equipment, and scholarship of the Faculty of the College. The ideal has always been that Christian training must be a large part of a true education. The college courses stand for sound and liberal culture, vital religion, and practical efficiency. This school is animated by the spirit of service to God and humanity.

The progress of the College since its reorganization in 1895 has been rapid. At the reorganization the value of the property was estimated at \$100,000. Then there were two buildings. Now the College has a campus of over fifty acres in the center of the town, with nine buildings. The college plant is valued at more than \$700,000.

THE ENTRANCE REQUIREMENTS

The requirement for admission to the Freshman class is fifteen units. A unit is the credit allowed for a subject pursued in daily recitations for the full year of at least 34 weeks. The maximum of four units is allowed for the regularly scheduled work of one year in a high school or other secondary school.

Fifteen units credit is equivalent to a full four-year course in a strong high school. Work of the regular four-year high school course cannot be accepted for advanced standing.

Graduates from a course in a three-year high school are required to complete two full terms of work (32 hours) at the College before being classed as Freshmen. Nine hours of the work of these two terms shall be in English and shall be in excess of the English requirement for the baccalaureate degree. The remainder of these thirty-two hours may be prescribed by the Registrar. All of this work will be classed among entrance requirements.

With the approval of the Committee on Admission and Instruction a student may take examinations in certain designated subjects, and upon successfully passing the examination may be credited with more than four units per year of high school residence. A request for this privilege is considered only in the case of students who have taken more than the regular work required during the time spent in residence in the high school.

Applicants for entrance to the courses leading to the degree of Bachelor of Arts, or the degree of Bachelor of Literature must present:

- 3 units in English.
- 3 units in Mathematics.
- 4 units in Latin.
- 2 units in Modern Language.
- 1 unit in Chemistry or Physics.
- The remaining 2 units are elective.

Candidates for the course leading to the degree of Bachelor of Science must present:

3 units in English.

3 units in Mathematics.

2 units in Modern Language.

1 unit in Biology.

1 unit in Physics.

1 unit in Chemistry.

The remaining 4 units are elective.

It is recommended that the unit in Biology be presented in one branch of Biology, such as Botany or Zoology.

A student who is deficient in any of the work prescribed for admission to one of the college courses may substitute other subjects to make a total of fifteen units, provided he take during his college course such subjects as will make up his deficiency. The following units may be presented:

	Minimum accepted	Maximum allowed
English	2 (see note 1)	3 (see note 1)
Mathematics—		
Algebra, elementary	1	1
Algebra, intermediate	$\frac{1}{2}$	$\frac{1}{2}$
Algebra, advanced	$\frac{1}{2}$ (see note 2)	$\frac{1}{2}$ (see note 2)
Geometry, plane	1	1
Geometry, solid	$\frac{1}{2}$	$\frac{1}{2}$
Trigonometry, plane	$\frac{1}{2}$ (see note 3)	$\frac{1}{2}$ (see note 3)
Foreign Language, total		8
Foreign Language, any one.....	1 (see note 4)	4
History, total		4
History, General	$\frac{1}{2}$	1
History, Ancient	$\frac{1}{2}$	1
History, Mediaeval	$\frac{1}{2}$	1
History, Adv. American	$\frac{1}{2}$	1
History, English	$\frac{1}{2}$	1
Science, total		4
Astronomy	$\frac{1}{2}$	$\frac{1}{2}$
Agriculture	$\frac{1}{2}$	$\frac{1}{2}$
Biology	$\frac{1}{2}$	1
Botany	$\frac{1}{2}$	1
Chemistry	1	1
Physics	1	1
Physiography	$\frac{1}{2}$	1
Physical Geography	$\frac{1}{2}$	1
Physiology, advanced	$\frac{1}{2}$	$\frac{1}{2}$
Zoology	$\frac{1}{2}$	1

NOTE 1—As the first English work in the high school course is largely grammar, the credit granted in English is one unit less than the number of years of work in this subject.

NOTE 2—A student presenting Advanced Algebra ($\frac{1}{2}$ unit) is required to elect during his course, College Algebra II.

NOTE 3—A student presenting Plane Trigonometry ($\frac{1}{2}$ unit) is required to elect during his course, Spherical Trigonometry or Surveying.

NOTE 4—A student presenting but one unit in any foreign language is required to elect during his course the second year's work in that language.

The units are to be chosen from the following:

ENGLISH. Grammar, Composition and Rhetoric, one unit; Literature, one unit; the third either Advanced Composition or Literature. Every applicant for admission to any of the regular college courses will be subject to a test in English Composition. He will be asked to write a brief essay on some familiar subject. In judging this essay special stress will be placed upon such elementary matters as spelling, capitalization, punctuation, grammar, the proper division of thought into sentences and paragraphs, orderly arrangement and clear expression of ideas. The amount of work in rhetoric required of a student will be determined by this test.

MATHEMATICS. Elementary Algebra, one unit; Plane Geometry, one unit; Intermediate Algebra, Solid Geometry, Advanced Algebra, Plane Trigonometry, each $\frac{1}{2}$ unit.

LATIN. Elementary Latin, one unit; Caesar, four books, one unit; Cicero, six orations and composition, one unit; Vergil, six books, one unit. In Cicero and Vergil for less work than above stated $\frac{1}{2}$ unit each may be allowed.

GREEK. Elementary Greek, one unit; Anabasis, four books and composition, one unit; Homer, three books, $\frac{1}{2}$ unit.

FRENCH. Elementary French (grammar, conversation and reading of easy texts), one unit; composition and translation (Le Chateau d'If, La Tulipe Noire, and Mlle. de la Seigliere, or equivalent), one unit.

SPANISH. Elementary Spanish (grammar, conversation and reading), one unit; composition and translation (El Pajaro Verde, Cuentos Castellanos, El Capitan Veneno) or the equivalent, one unit.

GERMAN. Elementary German (grammar, conversation and reading of easy texts), one unit; composition and translation (Wilhelm Tell and Immensee or equivalent), one unit.

HISTORY. General, or Greek and Roman, $\frac{1}{2}$ unit; Mediaeval and Modern, $\frac{1}{2}$ unit; English, $\frac{1}{2}$ unit; Advanced American, $\frac{1}{2}$ unit.

In each of these courses, more extended and thorough work may be accepted for a full unit.

PHYSICS. Carhart and Chute, Hoadley, or equivalent, with laboratory.

CHEMISTRY. "First Principles of Chemistry," Brownlee, or equivalent, with laboratory.

ASTRONOMY, BIOLOGY, BOTANY, PHYSICAL GEOGRAPHY, ADVANCED PHYSIOLOGY, ZOOLOGY, each $\frac{1}{2}$ unit. Exceptionally thorough and extended work in any of these subjects may be accepted as a full unit.

A student presenting a science with laboratory will be asked to present a certified laboratory note-book.

A student unable to carry work in a department to which his accepted units admit him, loses credit in all units up to the work he can carry.

Certificates must state clearly the following points:

1. The number of years at the institution.
2. The fact of graduation, if a graduate.
3. The subjects studied each year.
4. The text-book used in each subject.
5. The number of weeks devoted to each subject.
6. The number of periods per week for each subject.
7. The length of the period.
8. The grade received in each subject.

Blank forms will be furnished on application to the Registrar.

Students who have passed satisfactory examinations in the subjects required for entrance, are admitted as Freshmen.

A student who has had preparation in a subject but is unable to present a certificate showing the same will be asked to take examination in the subject and upon successfully passing this examination will be credited with the subject. In lieu of examination, the Committee on Admission and Instruction may require the applicant to take advanced courses in the same subject.

THE COLLEGE COURSES

The courses leading to the Baccalaureate Degree in Arts, Science, or Literature, require 192 hours of work beyond that necessary for entrance to the Freshman class. This means four years' work of 48 hours per year, or 16 hours per term.

Requirements in Hours for the Degrees

	<i>A.B.</i>	<i>Litt.B.</i>	<i>B.S.</i>
English Language	9	9	9
English Literature	9	9	9
Latin	18	18	
Greek	30		
Modern Language	9	27	9*
Mathematics	12	12	21
Physics	12	12	21
Chemistry			21
Biology			12
Bible	12	12	12
Psychology	6	6	6
Philosophy	3	3	3
Economics or American.....			
History	9	9	9
Elective	51	63	48
Physical or Military Training..	12	12	12†
	<hr/> 192	<hr/> 192	<hr/> 192

Candidates for the degree of Bachelor of Literature may, with the consent of the Faculty, substitute for the twenty-seven hours in one modern language, nine hours of collegiate grade in each of two modern languages. By collegiate grade is understood German 15, 16, 17; French 15, 16, 17; or Spanish 15, 16, 17.

Candidates for the degree of Bachelor of Literature may, with the consent of the Faculty, substitute for the eighteen

* One year's work of College Latin or Greek will be accepted in lieu of Modern Language.

† Physical or Military Training is compulsory for all students.

hours of collegiate Latin, eighteen hours of another language of collegiate grade. All candidates for the degree of Bachelor of Literature must offer work in two languages for the degree.

Candidates for the degree of Bachelor of Science may present twelve hours of Chemistry, twenty-one of Physics and twenty-one of Biology; or twenty-one of Chemistry, twelve of Physics and twenty-one of Biology, instead of twenty-one of Chemistry, twenty-one of Physics and twelve of Biology.

Students completing their work at the end of the Summer Term are graduated and receive their degree at that time. Students completing their work at the end of the Fall or Winter Term are graduated and receive their degrees in person at the following Commencement.

Plan of Course for the Degree of Bachelor of Arts

FRESHMAN YEAR

FIRST TERM	SECOND TERM	THIRD TERM
*English 11 and Oratory 11, 3 hours.	English 12 and Oratory 12, 3 hours.	English 13 and Oratory 13, 3 hours.
Greek 11, 5 hours.	Latin 12, 3 hours.	Latin 13, 3 hours.
Latin 11, 3 hours.	Greek 12, 5 hours.	Greek 13, 5 hours.
Mathematics 11, 4 hrs.	Mathematics 12, 4 hrs.	**Mathematics 13, 4 hrs.

SOPHOMORE YEAR

Latin 21, 3 hours.	Latin 22, 3 hours.	Latin 23, 3 hours.
Greek 21, 5 hours.	Greek 22, 5 hours.	Greek 23, 5 hours.
Physics 21, 4 hours.	Physics 22, 4 hours.	Physics 23, 4 hours.
Bible, 3 hours.	Bible, 3 hours.	Bible, 3 hours.

JUNIOR YEAR

Modern Language (Course 15), 3 hours.	Modern Language (Course 16), 3 hours.	Modern Language (Course 17), 3 hours.
English 31, 3 hours.	English 32, 3 hours.	English 33, 3 hours.
Psychology 31, 3 hours.	Psychology 32, 3 hours.	Philosophy 33, 3 hours.
Bible 31, 3 hours.	Elective, 6 hours.	(Logic)
Elective, 3 hours.		Elective, 6 hours.

SENIOR YEAR

Economics 31 or History 41, 3 hours.	Economics 32 or History 42, 3 hours.	Economics 33 or History 43, 3 hours.
Elective, 12 hours.	Elective, 12 hours.	Elective, 12 hours.

* "English 11" "Oratory 11" etc., are titles of prescribed courses. The description of these courses will be found under the various departments.

* * Mathematics 21 (Analytic Geometry), Mathematics 23 (Advanced Trigonometry), or Mathematics 25 (Surveying), may be substituted for Mathematics 13 (College Algebra, second term).

Candidates for Departmental Honors are excused from the prescribed junior work in Language and Bible.

* * * Military Training is compulsory for men in the Freshmen and Sophomore years.

Plan of Course for the Degree of Bachelor of Literature

FRESHMAN YEAR

FIRST TERM

*English 11 and Oratory
11, 3 hours.
Modern Language, 3
hours.
(Course 15)
Latin 11, 3 hours.
Mathematics 11, 4 hours.
Bible 21, 2 hours.

SECOND TERM

English 12 and Oratory
12, 3 hours.
Modern Language, 3
hours.
(Course 16)
Latin 12, 3 hours.
Mathematics 12, 4 hours.
Bible 22, 2 hours.

THIRD TERM

English 13 and Oratory
13, 3 hours.
Modern Language, 3
hours.
(Course 17)
Latin 13, 3 hours.
**Mathematics 13, 3 hours.
Bible 23, 2 hours.

SOPHOMORE YEAR

Latin 21, 3 hours.
Modern Language, 3 hrs.
Physics 21, 4 hours.
Psychology 31, 3 hours.
Elective, 2 hours.

Latin 22, 3 hours.
Modern Language, 3 hrs.
Physics 22, 4 hours.
Psychology 32, 3 hours.
Elective, 2 hours.

Latin 23, 3 hours.
Modern Language, 3 hrs.
Physics 23, 4 hours.
Bible, 3 hours.
Elective, 2 hours.

JUNIOR YEAR

Modern Language, 3 hrs.
Bible, 3 hours.
English 31, 3 hours.
Elective, 6 hours.

Modern Language, 3 hrs.
English 32, 3 hours.
Elective, 9 hours.

Modern Language, 3 hrs.
English 33, 3 hours.
Philosophy 33, 3 hours.
Elective, 6 hours.

SENIOR YEAR

Economics 31 or
History 41, 3 hours.
Elective, 12 hours.

Economics 32 or
History 42, 3 hours.
Elective, 12 hours.

Economics 33 or
History 43, 3 hours.
Elective, 12 hours.

* and ** (Footnotes as on page 24).

Candidates for Departmental Honors are excused from the prescribed junior work in English, Modern Language and Bible.

* * * Military Training is compulsory for men in the Freshmen and Sophomore years.

Plan of Course for the Degree of Bachelor of Science

FRESHMAN YEAR

FIRST TERM

*English 11 and Oratory
11, 3 hours.
Language, 3 hours.
Chemistry 11, 5 hours.
Mathematics 11, 4 hours.
Bible 21, 2 hours.

SECOND TERM

English 12 and Oratory
12, 3 hours.
Language, 3 hours.
Chemistry 12, 5 hours.
Mathematics 12, 4 hours.
Bible 22, 2 hours.

THIRD TERM

English 13 and Oratory
13, 3 hours.
Language, 3 hours.
Chemistry 13, 5 hours.
**Mathematics 13, 4 hours.
Bible 23, 2 hours.

SOPHOMORE YEAR

Mathematics, 3 hours.
Chemistry, 3 hours.
Physics 21, 4 hours.
Psychology 31, 3 hours.
Elective, 2 hours.

Mathematics, 3 hours.
Chemistry, 3 hours.
Physics 22, 4 hours.
Psychology 32, 3 hours.
Elective, 2 hours.

Mathematics, 3 hours.
Chemistry, 3 hours.
Physics 23, 4 hours.
Bible, 3 hours.
Elective, 2 hours.

JUNIOR YEAR

English 31, 3 hours.
 Physics 31, 3 hours.
 Biology, 4 hours.
 Bible, 3 hours.
 Elective, 2 hours.

English 32, 3 hours.
 Physics 32, 3 hours.
 Biology, 4 hours.
 Elective, 5 hours.

English 33, 3 hours.
 Physics 33, 3 hours.
 Biology, 4 hours.
 Philosophy 33, 3 hours.
 Elective, 2 hours.

SENIOR YEAR

Economics 31 or History
 41, 3 hours.
 Elective, 12 hours.

Economics 32 or History
 42, 3 hours.
 Elective, 12 hours.

Economics 33 or History
 43, 3 hours.
 Elective, 12 hours.

* and * * (Footnotes as on page 24).

Candidates for Departmental Honors are excused from the prescribed work in English, Bible and Sciences.

* * * Military Training is compulsory for men in the Freshmen and Sophomore years.

BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

In the past ten years there has been a very marked growth in the application of scientific thought to the commercial and industrial life of the Nation. This application has been much intensified under the stress of war conditions. In no other line of science has this development been more rapid than in the field of Chemistry. The College has arranged the following course leading to the degree of Bachelor of Science in Chemical Engineering with the view of equipping the graduates to take positions requiring a knowledge of the industrial applications of chemistry. The advantage of taking such specialized work in the cultural atmosphere of a college rather than in the intensely practical atmosphere of a technical school cannot be overestimated.

Plan of Chemical Engineering Course**FRESHMAN YEAR****FIRST TERM**

General Chemistry, 5 hrs.
 General Physics, 4 hours.
 Math. 11, 4 hours.
 Language, 3 hours.

SECOND TERM

General Chemistry, 5 hrs.
 General Physics, 4 hours.
 Math. 12, 4 hours.
 Language, 3 hours.

THIRD TERM

General Chemistry, 5 hrs.
 General Physics, 5 hrs.
 Mechanical Drawing, 4 hrs.
 Language, 3 hours.

SOPHOMORE YEAR

Qualitative Analysis, 5
 hours.
 Analytical Geometry,
 3 hours.
 Geology, 5 hours.
 Freshman English, 3
 hours.

Quantitative Analysis,
 5 hours.
 Differential Calculus, 3
 hours.
 Organic Chemistry, 5
 hours.
 Freshman English, 3
 hours.

Quantitative Analysis,
 5 hours.
 Integral Calculus, 3
 hours.
 Organic Chemistry, 5
 hours.
 Freshman English, 3
 hours.

JUNIOR YEAR

Advanced Mechanics, 3 hours.	Advanced Heat, 3 hours.	Advanced Electricity, 3 hours.
Physical Chemistry, 4 hours.	Physical Chemistry, 4 hours.	Physical Chemistry, 4 hours.
Industrial Chemistry, 3 hours.	Industrial Chemistry, 3 hours.	Industrial Chemistry, 3 hours.
Bible, 3 hours.	Bible, 3 hours.	Bible, 3 hours.
Psychology, 3 hours.	Psychology, 3 hours.	Logic, 3 hours.

SENIOR YEAR

Food Chemistry and Or- ganic Analysis, 5 hours.	Food Chemistry and Or- ganic Analysis, 4 hours.	Food Chemistry and Or- ganic Analysis, 5 hours.
Adv. Phys. Lab. 2 hours.	Adv. Phys. Lab., 2 hours.	Eng. Lit., 3 hours.
Eng. Lit., 3 hours.	Eng. Lit., 3 hours.	Research, 5 hours.
Research, 5 hours.	Research, 3 hours.	
Bible, 3 hours.		

* Military Training is compulsory for men in the Freshman and Sophomore years.

BACHELOR OF COMMERCIAL SCIENCE

The purpose of the College in offering a Course in Commerce is to give to the student who is preparing for a business career or to a teacher in a commercial high school, a training which embodies not only the essential technical courses needed by the business man or business woman but also to afford the student a general cultural education which will fit him to occupy a large place in the life of his community. The course, as outlined, offers a certain amount of elective privilege which will be distributed among those subjects in which the student is most vitally interested. It is also possible to modify the course in minor details where it is found desirable. Such modifications should be made in consultation with the Registrar.

The course covers four years. Entrants are required to have a four-year high school course or the equivalent. The degree of Bachelor of Commercial Science is granted upon the satisfactory completion of the work.

Plan of Course for the Degree of Bachelor of
Commercial Science

FRESHMAN YEAR

FIRST TERM		SECOND TERM	
	Hrs. Credit.		Hrs. Credit.
English 11 and		English 12 and	
Oratory 11	4 3	Oratory 12	4 3
Accounting 11	5 4	Accounting 12	5 4
Geology 11	5 5	Biology 15	5 5
Government 12	3 3	Government 13	3 3

THIRD TERM

	Hrs.	Credit.
English 13 and		
Oratory 13	4	3
Accounting 13	5	4
Chemistry A	5	5
Commerce 13	3	3

The following subjects will be required of students showing a lack of preparation:
 Secretarial 1..... 5 hrs. Secretarial 2..... 5 hrs. Secretarial 3..... 5 hrs.
 No credit is given for Secretarial 1, 2 or 3.

SOPHOMORE YEAR

FIRST TERM

	Hrs.	Credit.
English 31	3	3
Accounting 21	5	3
Commerce 21	3	3
Commerce 25	3	3
Modern Language	3	3

SECOND TERM

	Hrs.	Credit.
English 32	3	3
Accounting 22	5	3
Commerce 22	3	3
Commerce 26	3	3
Modern Language	3	3

THIRD TERM

	Hrs.	Credit.
English 33	3	3
Accounting 23	5	3
Commerce 23	3	3
Commerce 27	3	3
Modern Language	3	3

JUNIOR YEAR

FIRST TERM

	Hrs.	Credit.
Accounting 31	3	3
Economics 31	3	3
Modern Language	3	3
Electives	7	7

SECOND TERM

	Hrs.	Credit.
Accounting 32	3	3
Economics 32	3	3
Modern Language	3	3
Electives	7	7

THIRD TERM

	Hrs.	Credit.
Accounting 33	3	3
Economics 33	3	3
Modern Language	3	3
Electives	7	7

SENIOR YEAR

FIRST TERM

	Hrs.	Credit.
Business Administration 45.	3	3
Business Administration 41.	3	3
Bible	3	3
Electives	7	7

SECOND TERM

	Hrs.	Credit.
Business Administration 42.	3	3
Commerce 42	3	3
Bible	3	3
Electives	7	7

THIRD TERM

	Hrs.	Credit.
Business Administration 43.	3	3
Business Administration 47.	3	3
Bible	3	3
Electives	7	7

Physical Training or Military Training will be required during the first two years.

Twelve credits in Bible are required for graduation. In order to secure the required credits, one term of Bible should be taken as an elective, or, upon obtaining permission, it may be carried as an extra study.

SUGGESTED ELECTIONS

Common and Business Law: A three-term course covering the essential principles of Common and Business Law. Emphasis will be placed on the practical applications of the Law.

Commercial Teachers: Shorthand and Typewriting. Psychology and Education may be substituted for required subjects of equal value provided permission be granted by the Registrar.

Private Secretaries: Shorthand and Typewriting.

Students Preparing to Enter Foreign Trade (government or private): Additional language or continuation of first language, International Law, Transportation.

Students Preparing to Enter General Business: Mechanical Drawing, additional work in Economics, Transportation.

Civil Service: Additional work in Government, American History and Economics.

Shorthand and Typewriting must be taken together, 5 hours a week each, 5 credits being allowed for Shorthand, 2 for Typewriting.

PRE-MEDICAL REQUIREMENTS

For those intending to enter Medical Schools, the College offers opportunities for receiving instruction to meet the requirements of the best schools, and the strongest state boards of control of medical certification. The state board of Pennsylvania and of many other states require one year's credit in work of collegiate grade in each of the three sciences, biology, chemistry, and physics. At least two recitations and two laboratory periods a week are required in each of the sciences. The Medical Colleges in Pennsylvania require in addition to the above work in the sciences, English, psychology, modern language, and advanced chemistry sufficient to make a total of two years college work. Medical school requirements are met by the two-year course outlined in the following plan:

FIRST YEAR

Chemistry 11, (5); 12, (5); 13, (5).
 Biology 11, (5); 16, (5); 17, (5).
 English 11, (3); 12, (3); 13, (3).
 Oratory 11; 12; 13.
 Mathematics 11, (4); 12, (4); 13, (4).

SECOND YEAR

Modern Language (3); (3); (3).
 Chemistry 21, (5); 42, (5); 43, (5).
 Physics 21B, (5); 22B, (5); 23B, (5).
 Psychology 31, (3); 32, (3).
 Philosophy 33, (3).

TWO-YEAR SECRETARIAL COURSE

The two-year Secretarial Course will be continued, emphasis being placed upon the clerical subjects.

The class entering college in the fall of 1919 for the two-year Secretarial Course will be classed as Freshmen; their second year they will be classed as Sophomores. Two-year students will receive their certificates upon Commencement Day, but will have no part in the Class Day Exercises. The present second year class will continue in college under the conditions prevailing before the inauguration of the four-year course.

In character, the course is designed to give the student a thorough knowledge of the principles of bookkeeping, of stenography and typewriting, and of allied subjects. During the first year special emphasis will be placed on the technical side of the work. Moreover, the student will receive a thorough drill not only in Business English and Business Correspondence but will have the advantage of receiving throughout both years a college course in English. The importance of such courses can hardly be over estimated. They should give the student not only a knowledge of the technique of the language but also an appreciation of good English and the ability to use the mother tongue correctly.

During the second year thorough courses in Economics, Banking, Commercial Law, Commercial Geography, in addition to the course in college English have been introduced to widen the student's knowledge and to give him training in those subjects which are most essential in modern business.

For those who give satisfactory evidence of the completion of any considerable portion of the course, an opportunity will be given to substitute college subjects such as Languages, History, English, etc.

All students who are candidates for graduation in this Secretarial Course will be required to be high school graduates or to satisfy the Matriculation Committee of the College that they have the equivalent preparation. Students desiring special work and who do not wish to complete the entire course may

be admitted with the consent of the College authorities. No diploma will be granted unless the requirements of the course are fulfilled.

Outline of Two-Year Secretarial Course

FIRST YEAR

FIRST TERM

English 11 and Oratory
11, 4 hours.
Secretarial 1, 5 hours.
Accounting 11, 5 hours.
Stenography 11, 5 hours.
Typewriting 11, 5 hours.
Physical Training, 2 hours.

SECOND TERM

English 12 and Oratory
12, 4 hours.
Secretarial 2, 5 hours.
Accounting 12, 5 hours.
Stenography 12, 5 hours.
Typewriting 12, 5 hours.
Physical Training, 2 hours.

THIRD TERM

English 13 and Oratory
13, 4 hours.
Secretarial 3, 5 hours.
Accounting 13, 5 hours.
Stenography 13, 5 hours.
Typewriting 13, 5 hours.
Physical Training, 2 hours.

SECOND YEAR

FIRST TERM

English 31, 3 hours.
Accounting 21, 5 hours.
Stenography 21, 5 hours.
Typewriting 21, 5 hours.
Commerce 21, 3 hours.
Commerce 25, 3 hours.
Physical Training, 2 hours.

SECOND TERM

English 32, 3 hours.
Accounting 22, 5 hours.
Stenography 22, 5 hours.
Typewriting 22, 5 hours.
Commerce 22, 3 hours.
Business Administration 22, 3 hours.
Physical Training, 2 hours.

THIRD TERM

English 33, 3 hours.
Accounting 23, 5 hours.
Stenography 23, 5 hours.
Typewriting 23, 5 hours.
Commerce 23, 3 hours.
Commerce 42, 3 hours.
Physical Training, 2 hours.

GRADE VALUES

The grade values used in rating the quality of work are: A, 95 to 100 per cent.; B, 90 to 95 per cent.; C, 80 to 90 per cent.; D, 70 to 80 per cent.; E, 50 to 70 per cent., conditioned; F, below 50 per cent., failure; P, passed without rank. "A" and "B" are considered honor grades. Failure to take the final examination at the end of a course, or, in any other way to complete the work of a course, causes that course to be graded "E." In a course requiring laboratory practice, uncompleted laboratory work or unapproved laboratory reports cause that course to be graded "E."

A student who receives a condition, "E," in a subject has the opportunity of taking a special examination in this subject during his next succeeding term in college and on passing such special examination is graded "P" (passed). These special examinations are held according to a schedule published during the first week of the term. If the condition is not removed

at the end of such next succeeding term, the mark of condition "E" is considered as a mark of failure, "F."

All "E" and "F" grades in a student's record must be removed by special examination or repetition of courses before a degree is conferred upon the student. A student whose record shows continued unsatisfactory work may at any time be dropped from the rolls of the College.

STUDENT PROGRAMS

The regular program of work requires sixteen hours a term and, in general, a student in the regular courses is not permitted to take a schedule of more than sixteen hours.

A student, two-thirds of whose credits for each of two successive terms have been of honor grade is entitled to a schedule of 17, 18 or 19 hours credit. Failure to maintain the proportion of two-thirds honor grades for a schedule of 17, 18 or 19 hours makes it necessary for the student to return to the sixteen hour schedule. "E" or "F" grade causes the term in which such grade is received to be excluded from consideration for schedules beyond sixteen hours.

If a student has for two successive terms carried a schedule of 18 or 19 hours with all honor grades, he may apply to the Registrar for the privilege of taking 20 or 21 hours. Twenty-one hours is the limit of credit allowed for a term. If a student who is taking 20 or 21 hours falls below honor grade in more than one-third of his work for that term, he must return to the sixteen hour schedule; if he falls below honor grade in any work which is less than one-third of his schedule, he may be required to return to the sixteen hour schedule, but must return to the nineteen hour schedule. "E" or "F" grade causes the term in which such grade is received to be excluded from consideration for schedules beyond sixteen hours.

ADVANCED STANDING

A student who applies for advanced standing at this college on the basis of credits from another college may receive credit on a college course up to sixteen (16) hours a term or forty-eight (48) hours a year. If during his next two terms at Grove

City College he has done work of a grade entitling him under the rules to an increment of schedule hours, the Committee on Admission may, at its option, grant him a corresponding increment of credit for work done at the college from which he came; the credit granted for the work at the other college in no case exceeds twenty-one (21) hours a term, or sixty-three (63) hours a year. Each semester hour at a college is considered as one and one-half ($1\frac{1}{2}$) term hours. Blank forms for certification of collegiate work done at another institution may be obtained from the Registrar.

GENERAL HONORS

On graduation the students whose work meets the requirements stated in the following paragraphs are granted their degrees with honors.

A student whose grades average from 93% to 96% is eligible to honors on graduation and, unless the Faculty rules otherwise, receives the honor "cum laude."

A student whose grades average from 96% to 97.5% is recommended to the Faculty for the honor "magna cum laude."

A student whose grades average 97.5% may be recommended to the Faculty for the honor "summa cum laude."

In reckoning these values, A equals 97.5, B equals 92.5, C equals 85., D equals 75., P equals 70.

DEPARTMENTAL HONORS

A student who has completed two full years of college work and has maintained an honor standing in at least four-fifths of his studies, may at the beginning of his third (junior) year select a department in which he has not fallen below honor grade, in which department he shall do two-fifths of his work in his third (junior year) and three-fifths in his fourth (senior) year. The remainder of his studies shall be taken outside of the department that he has chosen and are free electives subject only to the requirements of the general course of study.

During the fourth (senior) year, it is at the discretion of the instructor or instructors to conduct seminars in the chosen department and to substitute research work and thesis for the regular class room exercises and examinations.

A candidate for departmental honors who falls below honor grade in the studies of his chosen department at the end of any term, is required to give up the course for special honors and to resume the regular course of study.

A student who has successfully completed the studies of his chosen department and has maintained honor standing in them and who has not fallen below "C" in non-departmental studies receives special honors in his department and has the same indicated upon his diploma.

An honor student is required to elect a major and a minor within his chosen department, the major to include three-fifths of the honor work of the last two (junior and senior) years.

It is understood that where two or more professors are assigned to a single department the one whose subject is the major in any given case is considered the head of the department for that student.

The following departments are open to students entitled to elect courses to departmental honors:

The Department of Philosophy and Education, in which either Philosophy or Education may be either a major or a minor.

The Department of History, Economics and Politics, in which either History or Economics and Politics combined may be either a major or a minor.

The Department of English including English Literature as a major and either Composition and Oratory or English Bible as a minor.

The Department of Classical Languages including Latin and Greek, either of which may be a major or a minor. Archaeology and Sanskrit are included in this department as elective but non-honor subjects.

The Department of Modern Languages, including French, Spanish and German, one of which may be a major or a minor. Italian and Romance Philology are included in this department as elective but non-honor subjects.

The Department of the Sciences and Mathematics, including Chemistry, Physics, Biology, and Mathematics, of which any two constitute a department for the student electing them;

the other two are considered extra-departmental. Agriculture, Astronomy, Geology, and Mechanical Drawing are included in this department as elective but non-honor subjects.

REGULATIONS GOVERNING INTER-COLLEGIATE CONTESTS

Only collegiate students may represent the College on teams of recognized college organizations. Absences incurred by the student, while representing a recognized college organization, are not counted off his gratuity.

No student, who has failed in more than one subject during his preceding term in college, may represent the institution on collegiate organizations.

No student doing "E" or "F" grade work in more than one subject may represent the college on collegiate organizations.

No student may represent the college on any one recognized college organization more than four years.

The coach in charge of the team shall furnish the Secretary with an authorized list of team men, which list shall be read at the regular meeting of the Faculty preceding the contest.

GRADUATE DEGREES

REQUIREMENTS FOR THE MASTERS DEGREE

The possession of baccalaureate degree (A. B., Litt. B., Ph. B., or B. S.) or what the Matriculation Committee regard as the equivalent, is essential.

Every candidate, when admitted and before entering on the course of study, is required to pay a matriculation fee of \$5.00.

Each candidate for the degree is required to complete three terms work in residence within three calendar years from the date of his matriculation. The regular schedule of work shall be four courses per term to be distributed as follows: three within the department, the fourth outside the chosen department. All courses are to be chosen in consultation with, and with the consent of the Registrar and the Head of the Department in which the student's major work is taken. Any course may be elaborated by assigned reading or research work.

The work of the candidate may not fall below honor rank (A or B). In case the candidate's work falls below this standard the Matriculation Committee, in consultation with the head of the department in which the student is majoring, may assign additional work or may require the student to abandon the course.

A thesis on a subject growing out of the student's main line of study is required. The subject for this thesis is chosen in consultation with the head of the department and must manifest ability to do independent work and to judge the relative values of various sources of information. The thesis is to be typewritten with black record ribbon, double space, on good quality paper of letter size, 8½x11 inches. There is to be a margin of 1½ inches at the left hand edge and 1 inch on the other three sides. When handed in, the thesis becomes the property of the College. It is to be handed in not later than

April 20th of the third year following the student's matriculation. After this has been accepted the student may be asked to present himself for final examination.

When the thesis has been accepted the candidate is required to pay a diploma fee of \$10.00. When all requirements have been met, he is recommended for the Master's degree which is conferred upon him in person at the following Commencement.

GENERAL INFORMATION

PREPARATION FOR RELIGIOUS WORK

The number of graduates of the College who have taken up some form of religious work is large. Strong work in the Classics, English, and Philosophy has built a solid foundation for later development. Every year a number of graduates enter the various theological seminaries. The reports from these schools show that the graduates of Grove City College are well trained in habits of thought and study.

SUMMER SESSIONS

The plan of summer sessions has been followed at Grove City College for more than twenty-five years. The College maintains a NINE WEEKS TERM for regular collegiate students and a SIX WEEKS TERM for teachers.

THE NINE WEEKS TERM affords the means by which a student may complete his college course in three years. It also offers an opportunity for young men and women who are engaged in teaching to fit themselves for better positions. The ambitious teacher may attend several summer sessions and thus obtain a college education which would be impossible under other conditions. The same courses in Music, Arts, Science and Business are offered as in the other terms. Beginning with the summer of 1920, the credit granted in summer terms will be prorated to compare with the length of time given to the courses. Since the term is only three-quarters the length of the other terms, only three-quarters credit will be granted. The normal schedule will be sixteen hours but will carry only twelve hours credit. This will be accomplished by giving one hour less credit per term than the course has recitations per week: i. e., a 5 hour course carries 4 hours credit; a 4 hour course carries 3 hours credit; etc.

THE SIX WEEKS TERM is especially designed for those who are engaged in public school work. Courses in all the

common branches and in the advanced subjects required for the State Permanent Certificate are offered. In addition, the opportunity is given to take special courses in Pedagogy, Play Ground Work, School Methods, School Art, and School Music. Specialists in the various subjects taught are obtained as instructors in each department. As a result of the high character of work and instruction, the Grove City Summer School for Teachers has become one of the largest in the state.

BIBLE SCHOOL

Early in August the Grove City Bible School holds its session. The morning is confined to lectures on various topics of special interest to Clergymen and Christian laymen. The afternoon is devoted to the work of the Mission School, which is of great interest to all those in any way connected with religious work. The evening is devoted to preaching services.

The following speakers appeared on the program for 1919: The Reverend John Timothy Stone, D. D., of the Fourth Presbyterian Church of Chicago, Ill.; Reverend John F. Carson, D. D., of the Central Presbyterian Church of Brooklyn, N. Y.; Bishop William Fraser McDowell, of the Methodist Episcopal Church; Reverend William L. McEwan, D. D., of the Third Presbyterian Church of Pittsburgh, Pa.; Professor Henry E. Dosker, of the Louisville Theological Seminary; Professor William R. Farmer, of the Western Theological Seminary; Reverend William Hiram Foulkes, D. D., General Secretary of the New Era Movement; Reverend Harvey Reeves Calkins, D. D., Executive Chairman of the Editorial Committee of the Publication, "Men and Money"; Professor George M. Sleeth, of the Western Theological Seminary; Bishop William F. Oldham, of South America; Reverend W. C. Johnson, D. D., of Africa; Reverend John Eakin, D. D., of Siam; Reverend J. Hillcoat Arthur, of China; Reverend R. S. McClenahan, D. D., of Egypt; and Mr. W. J. McKee, of India.

PREPARATION FOR TEACHING

The graduate of a college is eligible to receive a provisional college certificate from the Department of Public Instruction of Pennsylvania, if during his college course he has completed

two hundred recitation hours' work in educational subjects. This requirement is covered by a credit of seventeen hours. The educational subjects include psychology, ethics, logic, history of education, school management, and methods of teaching. As six hours of psychology and three hours of logic are required of all candidates for degrees, many have availed themselves of the work offered in Education to complete the requirement for teachers' certificates. After teaching successfully for three years, the holder of a provisional college certificate is eligible to receive the permanent college certificate.

WORK PRELIMINARY TO ENGINEERING

If a young man, after graduating from high school, has spent two years in the cultural, humanitarian atmosphere of a college of liberal arts, he has received a fundamental training in the best things which enables him to grasp more quickly and to use better a later training in applied science. The student who is well grounded in pure science can with little effort develop in the sphere of applied science. He is a better engineer or doctor for his training in college; in addition to this he is a better citizen, more in sympathy with his fellow citizens and better able to assist in the solution of economic problems. Grove City College offers thorough work in the fundamentals of mathematics, physics, chemistry, and biology. This fundamental work in these subjects is carried on with the ideal of pure science rather than that of utilitarianism. With two years at college, a young man who has availed himself of the opportunities in science and mathematics can complete a course in an engineering school in three years.

THE TOWN

Grove City College is located in Grove City, Pennsylvania, a town of about five thousand, on the Bessemer and Lake Erie Railroad. The town is 1300 feet above sea level and is supplied with pure water from artesian wells. The health conditions are excellent. This, together with the beauty of the surroundings and progressive character of the town, gives Grove City advantages possessed by few college towns. Connections are made at Butler with the Buffalo, Rochester & Pittsburgh and

the Pennsylvania Railways, at Mercer with the Pennsylvania, and at Osgood with the Lake Shore. There are four daily trains to Pittsburgh and to Erie.

THE COLLEGE

Grove City College is a non-denominational Christian college. No religious test is required of members of the Board of Trustees, Faculty, or student body. The College emphasizes Christian character, and from it there go out many young men and women to enter the gospel ministry or engage in other Christian work. More men enter the gospel ministry from this institution than from any other college in Pennsylvania. Each year, in August, a Bible Conference is held under the auspices of the College. This Conference continues ten days, and at it special courses by distinguished scholars and clergymen from both sides of the Atlantic are offered.

College work is begun each day with devotional exercises. Divine services are held each Sabbath morning in the chapel. College prayer-meetings are held regularly during each session.

Grove City College stands for classical education broadened by thorough work in mathematics and the sciences.

THE ISAAC C. KETLER MEMORIAL FOUNDATION

This Foundation was the natural outgrowth of the feeling that a fitting memorial should be established to the memory of Dr. Isaac C. Ketler, the Founder and First President of Grove City College. This feeling took definite form at the annual meeting of the Alumni Association in June, 1914, when a committee was appointed to consider the matter, and in its report recommended that the Alumni Association raise a fund of Sixty Thousand Dollars to be used as permanent endowment and this be known as the Isaac C. Ketler Memorial Foundation. The report of the committee was unanimously adopted and a permanent committee was appointed. At the Alumni meeting in June, 1916, it was announced that the entire Sixty Thousand Dollars had been subscribed. Mr. F. R. Babcock, President of the Board of Trustees, announced at the same time that the Trustees had raised a like amount to be added to the Founda-

tion, thus making a fund of One Hundred and Twenty Thousand Dollars to be used as a permanent memorial to the founder and builder of Grove City College.

SAMUEL P. HARBISON CHAIR OF BIBLE

The action creating the Samuel P. Harbison Chair of Bible, was taken at the regular meeting of the Board of Trustees on February 1, 1918. The action represented the unanimous will of the members of the Board and was a voluntary and grateful testimony of their appreciation of the large and vital part played by Mr. Harbison and his Estate in the growth of the College.

Mr. Samuel Pollock Harbison joined the Board of Trustees of Grove City College at the time of its reorganization in 1895. During the remainder of his life he was active in all the counsels of the College and was one of its most generous benefactors. He was a man of rare spiritual insights and his influence on the ideals of the College has been deep and lasting.

The chair is one of the most liberally endowed chairs of its kind in the country. The endowment totals \$55,000. Of this amount, \$45,000 was given by the Harbison Estate and \$10,000 by the College Board of the Presbyterian Church.

OTHER ENDOWED FUNDS

In addition to the endowed funds mentioned above, the College has other general endowment funds.

SELF HELP

Grove City College has endeavored to offer an education to men and women of moderate means. In the past, an exceptionally large number of students have during their college course earned all or a large portion of their expenses. The College endeavors in every way to assist students desiring self help. Many are given opportunities to wait on tables and to assist in other work around college buildings. The manufacturing and business interests of the town afford a number of places for ambitious men and women who are earning their way through college.

Each year a Silliman prize of \$50.00 is granted to the student who shows unusual promise.

THE CAMPUS

The campus of about fifty acres is located in the center of the town and is divided into two nearly equal portions by Wolf Creek. On the left bank are the dormitory for men and woodlands. On the right bank is the main campus with the athletic field and the other college buildings. These college buildings are heated with steam and lighted with electricity supplied from a central power plant.

THE BUILDINGS

The Administration Building, erected in 1888, is a four-story brick building and contains the offices, several recitation rooms, two laboratories for chemistry, two large rooms for use of the commercial school, and club rooms for the four literary societies.

Recitation Hall, a two-story brick building erected in 1879, contains six recitation rooms, the art studio, and two rooms for biology.

Physics Building, erected in 1902, contains a lecture room, several laboratories, and a large room for mechanical draughting. It is well equipped with apparatus for instruction in both general and advanced physics.

Ivy Chapel contains a small auditorium for the use of the student organizations, a large recitation room, and a rest room for the young women of the college.

Carnegie Library contains, in addition to the library and reading room, a public auditorium with seating capacity for six hundred, in which is a two-manual pipe organ.

Music Hall, erected 1895, is equipped with auditorium, recitation and practice rooms, containing the facilities for carrying on the work of the Conservatory of Music.

The Gymnasium, erected 1912, is a large and modernly equipped building for the general use of the Athletic Department. It is a substantial brick and steel structure, three stories high, 120 feet long and 60 feet wide, and contains in addition to locker rooms, a swimming pool, shower baths, baseball cage, varsity room, and a visiting team room on the first floor; re-

ception room, Athletic Director's rooms, office, and kitchen on the second floor, and on the third floor, in addition to the running track, a large private room and a number of study rooms for gymnasium caretakers.

The Colonial, Pelton, and Cunningham, the dormitories for young women, and Memorial Hall are described in the section for room and boarding.

HOSPITAL

A hospital is maintained in Grove City, where the sick of the College receive the best attention by trained nurses under the supervision of a competent superintendent. The hospital building is near the college grounds and is well located. It has all the modern conveniences and appliances and has gained a very enviable reputation for the excellent care given to the patients, and the fine work done by the physicians and surgeons of the hospital staff.

The hospital expenses of students are met through a special fund set apart for this purpose. In every case the hospital expenses for a period not exceeding two weeks (not medical fees) are met by the College.

STUDENT ORGANIZATIONS

There are four literary societies in the college—Shakespeare and Webster, for young men; Speedwell and Philokalian, for young women. These societies have been in existence from twenty to thirty years, and are composed of the best talent in the student body. Each society has its own club room which is well furnished and equipped. The order of exercises includes orations, debates, music, impromptu speeches, and friendly criticism.

There are healthy, active branches of both Y. M. C. A. and Y. W. C. A. among the students.

ROOMS AND BOARDING

The Colonial, Cunningham, and Pelton Halls—the ladies' dormitories—are under the immediate control of the Dean of Women, and are designed to provide comfortable and pleasant homes for young women. Students from out of town are re-

quired to room and board at the dormitories. The students' rooms are arranged mostly in suites of two with bath room for each suite; there are also some single rooms with bath. Each room is furnished for occupancy by two girls. Each girl furnishes her own towels and bed linen which are laundered by the College. The personal linen of each girl is laundered at her own expense.

Room and boarding at the Colonial for the twelve weeks sessions is \$99.00 for the term, two girls occupying a room. On the fourth floor the rate is reduced to \$90.00 a term, two girls occupying a room. On the fourth floor, three girls occupying one large room can be accommodated at \$90.00 for the term of twelve weeks. On lower floors where three occupy a room a charge of \$93.00 is made for the term of twelve weeks.

At the Pelton and Cunningham Cottages room and boarding is furnished at \$90.00 a term of twelve weeks, two occupying a room.

Memorial Hall, the dormitory for young men, was erected in 1914, equipped and furnished as a memorial to Joseph Newton Pew, who was for many years the President of the Board of Trustees of Grove City College and who had a very vital part in the development and growth of the institution. The building is located on high ground on the left bank of the creek, overlooks the campus and commands a view of the surrounding country. It is of thoroughly fire-proof construction throughout. The building is divided into five separate houses separated from each other by fire-walls.

There are accommodations for approximately one hundred and ten students. Several different and very attractive arrangements of rooms have been provided. In the end sections, there are a number of large rooms for two students. Each room has two large wardrobes with shelves and plenty of hooks, and is located near a bath room. Each suite has a large study room with two or three single bedrooms and opens directly into a bath-room.

The furnishings of the building received the special attention of the donors and the result is that in the furniture and equipment the building is believed to have no superior. The

furniture is of solid fumed oak and is of the modified mission type. It is substantial and gives one the impression of permanence and elegance. The beds are enameled malleable iron and are fitted with the best grade of springs and mattresses. In each study room there are large desks with drawers for each student, desk chairs, a rocker, a most comfortable and especially designed couch, and, also, what adds much to the appearance of the room, an open fireplace with a mantel.

The prices charged include rentals for room, furniture, with mattresses, pillows and blankets, janitor service, heat and light. Few colleges in the country are so liberal in their provisions. Students should provide bed-linen, towels, and comforts, and care for the same.

Room and boarding at Memorial Hall for the twelve weeks session is \$90.00 to \$99.00 per term. The rate for single rooms on the ground floor is \$90.00, two students in a room. The rate for single rooms on other floors is \$93.00. In the second, third and fourth sections, suites of three rooms, occupied by two students, rent at a rate of \$99.00. In the first section there are suites of four rooms occupied by three students at the rate of \$99.00.

A fee of five dollars (\$5.00) will be charged for room reservations in the College dormitories. This fee may be applied on room rental or left with the College as a permanent reservation fee. Students holding room reservations, who are unable for any reason to enter college, must notify the Registrar at least five days before the opening of the term in order to obtain a refund of the reservation fee.

All students not from Grove City will be required to room and board in the College dormitories except when given permission by the proper college authorities.

The general control of Memorial Hall is in the hands of a student committee working under the Advisory Committee of the Faculty. This committee is elected by the students residing at Memorial Hall from among their number. The committee has general charge of all questions of order and discipline, though the Faculty reserves the right to veto their actions.

TUITIONS

The tuition is twenty-nine dollars (\$29) for the term of twelve weeks and twenty-six dollars (\$26) for the summer term of nine weeks. This tuition entitles the student to any course in the collegiate department, to the use of the gymnasium, to entrance to all athletic contests and to care in the hospital in case of illness.

In courses requiring laboratory practice, the student is charged a laboratory fee. In biology and physics, this fee is two dollars (\$2) in all courses requiring one laboratory period (2 to 2½ hours) a week; in chemistry the fee is three dollars (\$3) in all courses requiring one laboratory period. In courses in physics and biology requiring more than one laboratory period, an additional fee of one dollar (\$1) is charged for each additional period. In courses in chemistry requiring more than one laboratory period an additional fee of two dollars (\$2) is charged for each additional period. The fees are usually as follows: in biology, \$2 or \$3; in chemistry, \$3 or \$5; in physics, \$2 and \$3; in mechanical drawing, \$5; in surveying, \$3.

TABLE OF EXPENSES

Tuition	\$29.00
Special examination in any subject	1.00
Mechanical drawing	5.00
Surveying	3.00
Biology laboratory	\$ 2.00 or 3.00
Chemistry laboratory	3.00 or 5.00
Physics laboratory	2.00 or 3.00
Typewriting	5.00
Board and room at the Colonial, ladies, a term.....	90.00 to 99.00
Board and room at the Pelton or Cunningham, ladies, a term	90.00
Board and room at Memorial Hall, men, a term.....	90.00 to 99.00

All tuitions and other college bills are due at the opening of the term; students who have not paid these bills or arranged for their payment, will be excluded from classes after the first week of the term. Laboratory fees must be paid by the end of the third week of the term. Students with unpaid laboratory fees are excluded from classes at the beginning of the fourth week.

Boarding charges are dependent on the general price level of commodities and are therefore subject to change.

No registration or matriculation fee is charged; no entrance fee is charged to college athletic games.

A student leaving college during the first four weeks of the term is refunded one-half of all tuitions.

No deduction is made for absence the first two weeks or last two weeks of a term for any cause whatever. For absence two consecutive weeks or more on account of the student's personal sickness, one-half the boarding charges for the time lost will be refunded, provided the student's physician in attendance certifies that the illness was of such nature as to render his return to school impossible. The College provides for hospital care of students up to two weeks in any term. No refund is made for any period for which the College has paid for hospital care.

The necessary expenses per term of twelve weeks for men and women residing in dormitories are:

Tuition	\$ 29.00	\$ 29.00
Room and Boarding	90.00 to	99.00
Books about	5.00	5.00
<hr/>		
Total	\$124.00	\$133.00

ABSENCE REGULATIONS

A total gratuity of as many class absences a term as he has class recitations a week is allowed to each student.

The gratuity in each course a term is equal to the number of recitations in the course a week.

A gratuity of fifteen absences a term from Chapel is allowed to each student. Absence from Sunday Chapel is counted as three on the gratuity for Chapel.

This gratuity is granted the student to cover all absences for any reason whatever.

When a student exceeds his gratuity in any subject, he becomes subject to discipline.

Absences are counted from the first recitation in each course.

Absence from class affects the grade of the student for that course.

The Dean of the Faculty has control of the question of absences; all requests should be made to him at his regular office hours. Permissions for absences hold for one term only and are renewed only by application to the Dean each term. All such requests for optional attendance at Chapel must be made to the Dean within one week of registration in college.

DEPARTMENTS OF INSTRUCTION

On the following pages is given an account of the work done in each course in the various departments. The courses are numbered as follows: Freshman courses, 11 to 19; Sophomore courses, 21 to 29; Junior courses, 31 to 39; Senior courses, 41 to 49; Graduate courses, above 50. The courses are regularly taught as follows: In the fall term, courses 11, 15, 21, 25, 31, 35, 41, 51, 55; in the winter term, courses 12, 16, 22, 26, 32, 36, 42, 46, 52, 56; in the spring term, courses, 13, 17, 23, 27, 33, 37, 43, 47, 53, 57; in the summer term, courses 14, 18, 24, 28, 34, 38, 44, 48, 54, 58. Some courses are repeated other terms; this is particularly true in the summer term.

Following the description of each course is given the name of the text used, the titles of courses which are requisite to the work of the course, and statement of the credit given for the course. In all courses an equivalent text may be substituted for the one named.

DEPARTMENT OF PHILOSOPHY

President Ketler, Professor Doxsee, Professor Reagle

PHILOSOPHY 33. Logic: An elementary course in the forms of reasoned thinking, both deductive and inductive; lectures and recitations illustrated by numerous examples in logical praxis. Text-book: Creighton's Introductory Logic. Prerequisite: Psychology 31 and 32. Credit, 3 hours.

PHILOSOPHY 35. Introduction to Philosophy: An historical approach to the problems of metaphysics and epistemology; lectures and reports. Text-book: Calkins: The Persistent Problems of Philosophy. Prerequisite: Psychology 32 and Philosophy 33 are advised. Credit, 3 hours.

PHILOSOPHY 37. The Philosophy of the Christian Religion: A study of Christianity and the religions of the world historically investigated and philosophically construed with a purpose "to give a reason for the faith that is within us"; to learn the quest of man after God, and the quest of God after man. Text-book: Fairbairn: The Philosophy of the Christian Religion. Credit, 3 hours.

PHILOSOPHY 43. Ethics: A constructive study of ethical theory with an account of its philosophical basis, and a review of the great historical systems. Text-book: D'Arcy's Ethics. Prerequisite: Psychology 32. Credit, 3 hours.

PHILOSOPHY 45. History of Philosophy: A study of the Greek Mediaeval periods in philosophy, including a survey of the Pre-Socratic and Socratic Schools; an examination of Stoicism, Epicureanism and Scepticism, and a study of Neo-Platonism and the Scholasticism of the early Christian Fathers. Text-book and additional readings. Credit, 3 hours.

PHILOSOPHY 46. History of Philosophy: A study of the modern philosophers beginning with Descartes and including the principal philosophers of the French, English and German Schools. A portion of the time may be devoted to contemporary leaders of philosophic thought. Text-book and additional readings. Credit, 3 hours.

DEPARTMENT OF PSYCHOLOGY AND EDUCATION

Professor Platt

PSYCHOLOGY

PSYCHOLOGY 31. General Psychology, first term: An introduction to the procedure of psychology, the nature of consciousness, the relationship between consciousness and the nervous system, and the processes of sensation-perception. This course provides the foundation for the work of Psychology 32. Text-book: Angell's Psychology. Credit, 3 hours.

PSYCHOLOGY 32. General Psychology, second term: A course presenting a consideration of memory and imagination, the ideational processes, the feelings, will, and the various dynamic phases of consciousness. A detailed study of the reactions to environment, suggestion, and inclination is made. After completing Psychology 32, a student should not only be able to understand the customary reactions to the extra-mental world, but should be able to analyze motives and reactions in such a way as to make practical application of this knowledge to his own life. Text-book: Angell's Psychology. Prerequisite: Psychology 31. Credit, 3 hours

PSYCHOLOGY 33. Genetic Psychology: A study of the beginnings and growth of mental life, tracing the types of adaptive activity or intelligence through the physiological, sensory-motor, representative, and conceptual stages. Students preparing to teach should avail themselves of this course in order to better understand the mental life of the pupils under their care. Text-book: Kirkpatrick's Genetic Psychology. Prerequisite: Psychology 32. Credit, 3 hours.

PSYCHOLOGY 37. Educational Psychology: A consideration of those aspects of psychology which form the basis for rational education, and to show their practical application to the problems of the schoolroom. Prerequisite: Psychology 32. Credit, 3 hours.

PSYCHOLOGY 43. Social Psychology: A study of the nature of the social mind, the influence of the individual on the group and the influence of the group on the individual. This course is particularly valuable to prospective teachers, ministers, and lawyers. Text-book: Ross' Social Psychology. Prerequisite: Psychology 32. Credit, 3 hours.

PSYCHOLOGY 47. Abnormal Psychology: A course dealing primarily with diseased and abnormal mentality, but considers also many of the unusual phases of normal mental life. It ranges in its interests from the absent-mindedness of every day life to the phenomena of hysteria and multiple personality. Prospective physicians and lawyers as well as teachers should find this course of value. Prerequisite: Psychology 32. Credit, 2 hours.

EDUCATION

EDUCATION 31. History of Education, first term: A study of the great educational periods and tendencies of history beginning with education as a non-progressive adjustment as found among the primitive races and tracing the development of educational content and method to the close of the Reformation. Text-book: Monroe: A Text-book in the History of Education. Credit, 3 hours.

EDUCATION 32. History of Education, second term: A course taking up the realistic conception of education, and from that as a starting point a critical study of the various educational movements is made. Prerequisite: Education 31. Credit, 3 hours.

EDUCATION 35. History of Secondary Education: A study of secondary education in its process of development. Perhaps more than any other phase of education, secondary education reflects the interests and ideals of a nation. Students who may be interested in the educational tendencies of the present day will find this course instructive and interesting. Prerequisite: Education 31, or Education 32. Credit, 2 hours.

EDUCATION 36. General Methods: A study of the principles underlying the process of learning, together with methods of directing and assisting others in the learning process.

If a teacher understands the broad, general principles upon which teaching is builded, he may apply these principles to the special subjects which he may be called upon to teach. Prospective teachers should avail themselves of this course.

Credit, 2 hours.

EDUCATION 41. Principles of Education: A consideration of the bases, aims, values, and essential content of education; principles underlying the administration of the curriculum; the agencies that educate; and a review of the fundamental psychological principles that a teacher should understand. Text-book: Ruediger's Principles of Education.

Credit, 2 hours.

EDUCATION 42. Principles of Secondary Education: A study of the special problems characteristic of the high school, and an application of the methods of teaching to high school subjects. Adolescence is studied in its relation to the learning process, and in its relation to the interests peculiar to this period of life. Text-book: Monroe's Principles of Secondary Education. Prerequisite: Education 41.

Credit, 3 hours.

EDUCATION 43. Philosophy of Education: A philosophical consideration of education in the light of what is known of biology, sociology, and psychology. No teacher is thoroughly prepared for the teaching profession who has not studied and reflected upon the subject of education in these connections. Such a course of study should give teachers a new and deeper understanding of the inner significance of education as an agency of human development. Text-book: Horne's Philosophy of Education. Prerequisites: Psychology 32, and Education 41.

Credit, 2 hours.

EDUCATION 45. Educational Sociology: A consideration of the individual and society as the two fundamental elements in the educational process, and their relations and the part each plays in the common life-process. Teachers should understand the means that education employs in utilizing the powers and capacities of the individual to fit him in the social system of which he is a part. Prerequisite: Education 41.

Credit, 2 hours.

EDUCATION 46A. Social Principles of Secondary Education: A survey of the policies, examples, and suggestions of ways and means of making the socializing work of the high school more definite and more effective. A study of the social principles of secondary education is demanded by the new awakening all over the country to a realization of the social and democratic meaning as well as the purely instructional nature of secondary education. Text-book: Johnstone: The Modern High School. Credit, 2 hours.

EDUCATION 46B. Education of the Exceptional Child. The purpose of this course is to give an insight into what the problem of the exceptional child may be. It is concerned with the educational procedure; but the character of the human material which is to be educated plays a fundamental part. Thus, questions of heredity and family history; of environment and social-economic conditions; of child hygiene and public sanitation; and numerous other elements are considered. Having completed a course of this kind, teachers will be better prepared to deal with children under their care who may deviate from the normal. Text-book: Crossmann: The Exceptional Child. Prerequisite: Psychology 32. Credit, 2 hours.

EDUCATION 47. High School Supervision: A course designed for those who are already quite familiar with principles of school management. Consideration is given to the subjects that form the central feature of the activities of the school; to the line of contact where the personality of the teacher meets that of the pupil in the learning process; and to the problems connected with the presentation of the program of studies. Text-book: Hollister's High School Supervision. Prerequisite: Education 42. Credit, 2 hours.

EDUCATION 49. Theory and Practice of Teaching: An attempt, so far as it is possible with the limited time and facilities, to put into practice the theory of teaching as outlined in other courses and as review in this course. Students will be given opportunity to conduct recitations from time to time under direct supervision. (Open to a few students only.)

Credit, 3 hours.

DEPARTMENT OF HISTORY, ECONOMICS AND GOVERNMENT

Professor Hatfield

HISTORY

HISTORY 11. Greece and the Hellenistic Age to 146 B. C.: A survey of the institutions of Greek life, government, society, religion, and the expansion of Greek life and thought under Alexander; collateral readings from histories of Greece by Holm and Duruy with other readings from the sources; reports. Text-book: Bury's History of Greece.

Credit, 3 hours.

HISTORY 12. The Roman Republic to Julius Caesar: Collateral readings in histories of the Romans by Mommsen, Botsford and others; source reading and reports. Text-book: Pelham's Outlines of Roman History.

Credit, 3 hours.

HISTORY 13. The Roman Empire, Julius Caesar to Justinian: Collateral readings in the several leading histories of the Empire; source reading and reports. Text-book: Jones: The Roman Empire.

Credit, 3 hours.

HISTORY 21. Mediaeval History, Justinian to the Renaissance 1450. Topics: Results of the Roman Empire, The Papacy, Monasticism, Feudalism, Beginnings of Modern States, The Church of the Middle Ages, Heresy, The Friars, Culture of the Middle Ages, The Great Church Councils, Italy 1300-1500, Renaissance, The Early Reformation. Readings in the Sources for this period; Robinson's Collections. Text-book: Robinson's History of Western Europe, Chapters 1 to 24.

Credit, 3 hours.

HISTORY 22. Europe between 1450 and 1800: The foundations of Modern Europe; colonial and dynastic rivalries; rise of modern states; the French revolution; the industrial revo-

lution; source readings, Robinson's Collection. Text-book: Hayes: A Political and Social History of Modern Europe, Volume 1. Credit, 3 hours.

HISTORY 23. Europe in the Nineteenth Century, and to the present time: Reactions after Napoleon, industrial revolution, Nationalism, Latin Europe, Teutonic Europe, rise of Russia and Prussia, unification of Italy, the Ottoman empire, spread of European civilization, War of 1914. Text-book: Hayes: A Political and Social History of Modern Europe, Volume II. Collateral readings with reports. Credit, 3 hours.

HISTORY 31. History of England from the beginning to 1485: Early settlements, beginning of Christianity in England, early social and political customs, the Kingship, Normandy, representative Government, ecclesiastical conflicts. Source readings with reports. Text-books: Gardiner's History of England, chapters 1 to 23; Chegney's Industrial and Social History of England. Credit, 3 hours.

HISTORY 32. History of England, 1485-1750: The Tudor Monarchy, the Reformation in England, Parliament, rise of the middle class, commerce, expansion, Puritan Revolution, the Kingship, political parties, Scotland, Ireland. Same text-books and plan as in History 31. Credit, 3 hours.

HISTORY 33. History of England 1750 to the present time: Whigs and Tories, economic systems, colonial growth, Parliament, England and the French Revolution; democracy and reforms, free trade, imperialism, industrial and commercial developments. Same text-books and plan as in History 31 and 32. Credit, 3 hours.

HISTORY 41. American History, Colonial Period. Text-books: Bassett's History of the United States, The American Nation Series, West's American Government, Source Book in American History, Messages and State Papers. Collateral readings with reports. Credit, 3 hours.

HISTORY 42. History of the United States 1783 to 1837: The Constitution and organization of the Government, political parties and constitutional questions, social and industrial growth, expansion of territory and sectionalism, tariff, finance

and monetary history, the War of 1812 and the New Americanism, slavery, nullification, the new democracy. Credit, 3 hours.

HISTORY 43. History of the United States from 1837 to the present time: Slavery, States' rights, sectionalism, economics and social growth, politics, foreign relations, the Civil War, reconstruction, arbitration, finance, civil service, suffrage and tariff reforms, industrial growth and combinations, imperialism, problems of expansion, European War. Same texts and plan as History 41 and 42. Credit, 3 hours.

HISTORY. Special Courses. One of the following courses will be offered each term, according to election by students:

1. Renaissance and Reformation.
2. The Roman Republic.
3. Roman Private Law.
4. The Government of Athens; Aristotle's Constitution of Athens.

ECONOMICS

ECONOMICS 11. A First College Course in the Elements of Economics. Text-book: Fly, Adams, Lorenz, Young's Outlines of Economics. Books I and II, pages 1 to 640. Credit, 3 hours.

ECONOMICS 31. Principles and Theories of Economics. Topics: Wealth and labor, modern industry, features of modern production, capital, value and exchange, money and banking, international trade. Text-book: Taussig's Principles of Economics, Volume I. Credit, 3 hours.

ECONOMICS 32. Principles and Theories of Economics. Topics: Distribution of wealth, land and agriculture, labor, wages, population, insurance, transportation, combinations and trusts, socialism, taxation. Text-book: Taussig's Principles of Economics, Volume II. Credit, 3 hours.

ECONOMICS 33. Money and Banking. Text-book: Holdsworth's Money and Banking. Credit, 3 hours.

ECONOMICS 34. Labor Problems. Text-book: Adams and Summer's Labor Problems. Credit, 3 hours.

ECONOMICS 35. Principles of Rural Economics. Text-book: Carver's Principles of Rural Economics. Credit, 3 hours.

ECONOMICS 36. Elements of Railway Economics. Text-book: Acworth's Elements of Railway Economics.

Credit, 3 hours.

ECONOMICS 41. Economic History: A survey of economic phenomena in various countries, with special attention to England and the United States since 1750; law, commerce, finance, industry, and successive Economic Systems. Prerequisite: Economics 11, or Economics 31 and 32.

Credit, 3 hours.

A year's work in Economics and Government is planned for the Freshman year by combining Economics 11 and Government 12 and 13 into one group.

GOVERNMENT

GOVERNMENT 12. The American Government: The essential principles and forms of organization of the federal and state government, and local government. Text-books: Beard's The American Government and Politics, and Forman's Advanced Civics, Parts I and II. Parallel readings, with reports.

Credit, 3 hours.

GOVERNMENT 13. The Functions of the American Government. Topics: Political theories as to scope and functions of government, laws, defense, international relations, taxation, national finance, state finance, public debt, taxation, money, commerce, elections, education, corporations, labor, crime, charities, police powers. Text-books: Beard's The American Government and Politics, and Forman's Advanced Civics, Part III. Parallel readings with reports. Prerequisite: Government 12.

Credit, 3 hours.

GOVERNMENT 41. Modern European Governments: Three or four of the most important governments of Europe will be studied, the selection being made according to the conditions of current events. Text-books: Ogg's European Governments, and Dodd's Modern Constitutions. Collateral readings with reports.

Credit, 3 hours.

GOVERNMENT 42. Modern European Governments: A study of other governments of Europe than those selected for Government 41. Text-books: Ogg's European Governments, and Dodd's Modern Constitutions. Collateral readings with reports. Credit, 3 hours.

GOVERNMENT 43. An Introduction to the study of Political Science: The origin of government, theories of government, historical forms of government and changes in the forms, the sphere of government. Text-book: Leacock: The Elements of Political Science. Parallel readings with reports. Credit, 3 hours.

DEPARTMENT OF ENGLISH

English: Professor Doxsee, Professor Tinker

The Bible: Professor Reagle

Oratory: Miss Griffin

Library: Miss Dunbar

ENGLISH

ENGLISH 11. English Composition: The systematic discussion of the principles of composition, with practice in the writing of numerous brief papers; collateral reading and critical discussion of models of various types of writing; individual criticism of students' themes at times appointed by the instructor. Text-book: Woolley's Handbook of Composition. Prerequisite: High School English. Credit, 2 hours.

ENGLISH 11 and ORATORY 11 are combined as one course. Credit, 3 hours.

ENGLISH 12. English Composition: The discussion and application of the principles of composition, together with the critical study of models. Text-book: Woolley's Handbook of Composition. Credit, 2 hours.

ENGLISH 12 and ORATORY 12 are combined as one course. Credit, 3 hours.

ENGLISH 13. Argumentation: Study of the principles and methods of formal debate; practice in both oral and written argument. Text-book: Duncan, Denney and McKinney's Argumentation and Debate. Credit, 2 hours.

ENGLISH 13 and ORATORY 13 are combined as one course. Credit, 3 hours.

ENGLISH 15. American Poetry: Bryant, Poe, Emerson. Text-book: Page's The Chief American Poets.

Credit, 3 hours.

ENGLISH 16. American Poetry: Longfellow, Lowell and Holmes. Text-book: Page's The Chief American Poets.
Credit, 3 hours.

ENGLISH 17. American Poetry: Whittier, Whitman and Lanier. Text-book: Page's The Chief American Poets.
Credit, 3 hours.

ENGLISH 15, 16, and 17 are required for all graduates of a three-year high school.

ENGLISH 31. Introduction to English Literature: Classroom reading and discussion of works illustrative of the various types of English literature. The Renaissance and the Seventeenth Century:—Chaucer, Shakespeare, Spencer, Bacon, Bunyan, Milton. Prerequisite: English 11, 12, 13.
Credit, 3 hours.

ENGLISH 32. Introduction to English Literature: Readings in English literature in the Eighteenth Century:—Swift, Addison, Steele, Pope, Johnson, Gray, Goldsmith, Cowper, Burns.
Credit, 3 hours.

ENGLISH 33. Introduction to English Literature: Readings in the prose and poetry of the Nineteenth Century:—Wordsworth, Coleridge, Scott, Byron, Shelley, Keats, Carlyle, Ruskin, Arnold, Tennyson, Browning.
Credit, 3 hours.

ENGLISH 35. Milton: The critical study of Paradise Lost, Paradise Regained, and Samson Agonistes; informal lectures, assigned readings and reports. Prerequisite: English 31, 32, 33.
Credit, 3 hours.

ENGLISH 36. English Poetry, 1789-1832: Burns, Wordsworth, Coleridge, Scott.
Credit, 3 hours.

ENGLISH 37. English Poetry, 1798-1832: Byron, Shelley, Keats. Prerequisite: English 36.
Credit, 3 hours.

ENGLISH 35A. Shakespearean Tragedy: The study of Hamlet, Macbeth, King Lear and Othello, with lectures on the nature of tragedy.
Credit, 3 hours.

ENGLISH 36A. Shakespearean Comedy: Six comedies of Shakespeare, with collateral study of the Elizabethan stage.
Credit, 3 hours.

ENGLISH 37A. Contemporary Drama: The main tendencies of the modern stage. Text-book: Dickinson's Chief Contemporary Dramatists. Credit, 3 hours.

ENGLISH 41. Teacher's Course in Literary Criticism: A study of the principles of literary criticism and of the relation of literature to science. Lectures, discussions, and reports. Text-book: Painter's Elementary Guide to Literary Criticism. Credit, 3 hours.

ENGLISH 42. A continuation of English 41.

Credit, 3 hours.

ENGLISH 43. A continuation of English 42.

Credit, 3 hours.

ENGLISH 45. Carlyle: The study of Carlyle's work in its leading phases with a consideration of his relation to contemporary thought and letters; informal lectures and assigned readings. Prerequisite: English 31, 32, 33. Credit, 3 hours.

ENGLISH 46. Tennyson: The study of selected poems illustrative of the development of Tennyson's art; informal lectures and assigned readings. Credit, 3 hours.

ENGLISH 47. Browning: Interpretive reading and critical discussion of Browning's representative work.

Credit, 3 hours.

BIBLE

BIBLE 21. Old Testament History: The Hebrew Patriarchs and the early Founders of the Nation: a study of the books from Genesis to Ruth in the light of corroborative testimony from other sources. Credit, 3 hours.

BIBLE 22. Old Testament History: The Hebrew Monarchy, the Exile, and the Restoration. The historical books from Samuel to Esther will be studied, supplemented by historical data from the Prophets and outside sources.

Credit, 3 hours.

BIBLE 23. The Hebrew Prophets. An introduction to the study of Prophecy with the special study of one or more of the books of the Major Prophets. Credit, 2 hours.

BIBLE 24. Hebrew Wisdom Literature: A general introduction to the works of the Hebrew Sages and Poets with a special study of Job. Credit, 2 hours.

BIBLE 31. The Life of Christ. Text-book: Stevens and Burton's Harmony of the Gospels. Credit, 3 hours.

BIBLE 32. The Apostolic Church. The history of the Acts and Epistles. Text-book: Burton: The Records and Letters of the Apostolic Age. Credit, 3 hours.

BIBLE 33. A History of the English Bible, including manuscripts and versions. Credit, 2 hours.

BIBLE 34. A study of selected Pauline Epistles, with more detailed study of the Epistle to the Romans. Credit, 2 hours.

BIBLE 35. The History of the Christian Church: An outline study of the history of the Christian Church; the circumstances of its origin, early developments, changes which led to the Reformation, and the influences which have resulted in the present life of the Church. Text-book: Walker. Credit, 3 hours.

ORATORY

ORATORY 11. Interpretation and Presentation of literature; exercises for freeing the body and voice. Text-book: Emerson's Evolution of Expression, Vol. I. Two recitations a week. Credit: Combined with English 11 for a credit of 3 hours.

ORATORY 12. Presentation of literature paying attention to the Parts of the selection. Text-book: Emerson's Evolution of Expression, Vol. II. Two recitations a week. Credit: Combined with English 12 for a credit of 3 hours.

ORATORY 13. Presentation of literature finding the service rendered the whole by each part. Text-book: Emerson's Evolution of Expression, Vol. III. Two recitations a week. Credit: Combined with English 13 for a credit of 3 hours.

ORATORY 21. Physical Culture; a special set of physical exercises is given: Vocal Culture; breath control, placing

of tones, resonance: Pantomime; presentation of scenes from life for criticism: Literary Interpretation; two of the last four steps of Evolution of Expression: Recital: Story; telling assigned stories. Four recitations a week. Credit, 2 hours.

ORATORY 22. Physical Culture; use of the exercises of Oratory 21 in quotations and selections: Vocal Culture; tone projection, radiation: Pantomime; poised groups representing different thoughts and emotions: Literary Interpretation; the last two steps in Evolution and Expression: Recital: Story; telling and classifying stories. Four recitations a week. Credit, 2 hours.

ORATORY 23. Physical Culture; special selections with attention paid to gesture; spontaneous gesture: Vocal Culture; compass, smoothness, power and brilliancy of tone: Pantomime; short plays produced from subjects given; scenes from well known dramas or stories: Literary Interpretation; beginning Sixteen Perfective Laws of Art: Recital: Story; the stories of different nations; the use of the story; stories for the different ages of children. Four recitations a week. Credit, 2 hours.

ORATORY 31. Gesture; technique: Literary Interpretation; expressive study of description and narration; poetry: Recital: Dramatics; reading of one-act plays: Oratory; study of extracts from famous orations. Four recitations a week.

ORATORY 32. Gesture; selections with criticism given especially to gesture: Literary Interpretation; poetry and dramatic literature: Recital: Dramatics; presentation of one-act plays; stage setting; business: Oratory; analysis and presentation of orations. Four recitations a week.

ORATORY 33. Gesture; spontaneity and calculation; the physiology and psychology of gesture: Literary Interpretation; prose, poetry, bible: Recital: Dramatics; presentation of one-act plays with costume: Oratory; study and writing of orations. Four recitations a week.

ORATORY 41. Literary Interpretation with drill on the Sixteen Perfective Laws of Art: Impersonation of the child:

Recital: Dramatic Interpretation of one tragedy from Shakespeare: Public Speaking with the writing and presenting short speeches on current topics. Four recitations a week.

ORATORY 42. Literary Interpretation with drill on the Sixteen Perfective Laws of Art: Monologue: Dialect: Recital: Dramatics; presentation of scenes from plays studied in Oratory 41: Public Speaking with talks from notes on current topics. Four recitations a week.

ORATORY 43. Literary Interpretation; higher attitudes of the mind and soul: Delineation of character: Public recital: Dramatics; reading and presentation of scenes from one of Shakespeare's comedies: Public Speaking; longer speeches without notes upon current events; topics from history and literature. Four recitations a week.

ORATORY 31, 32, 33, 41, 42, 43 do not yield credit applying toward the requirements for a baccalaureate degree. Students graduating in any of the academic courses who have taken the four years work in Oratory will be given a special certificate in Oratory.

LIBRARY

BIBLIOGRAPHY AND GENERAL REFERENCE. The purpose of this course is to train students in the proper use of the library and to familiarize them with the principal reference books. It comprises lectures on classification of books, the catalogue, indexes, dictionaries, encyclopaedias, public documents, graded lists of children's literature, selection and management of school libraries, story telling.

The student is given test problems and reference lists to work out. Stress is laid upon current events and the best sources for such. A bibliography on some approved subject is required of each student.

Practice work: As the library is free to both College and town the work at the desk gives the student in charge practical experience in work with both adults and children. Practice

work in the story hour is given to those desiring special work with the children.

The course for the first term is a general course and is without college credit. The class for the second term and third term is formed from those who have shown marked ability in the first term's work.

Lecture, 2 hours; Practice work, 3 hours, throughout the year.

For second and third terms, credit, 1 hour.

DEPARTMENT OF CLASSICAL LANGUAGES

Latin: Professor Calderwood

Greek: Professor Oliphant

LATIN

LATIN 11. Cicero; De Senecute and De Amicitia: A study of the text with reference to the grammar, contemporary history and philosophic thought. Text-book: Chase and Stuart. Prerequisite: Latin, 4 units. Credit, 3 hours.

LATIN 12. Latin Composition: A thorough review of grammar and vocabulary. Text-book: Barss' Latin Composition, Book 2. Credit, 3 hours.

LATIN 13. Livy, Book 1. Books 2, 21 or 22 may be substituted for Book 1. Credit, 3 hours.

LATIN 21A. Plautus; Captivi et Trinummus: A study of the Latin drama. Taught in 1920-21. Prerequisite: Latin 11. Credit, 3 hours.

LATIN 21B. Terence; Phormio and Selections: A study of the Latin Drama. Taught in 1919-20. Prerequisite: Latin 11, or equivalent. Credit, 3 hours.

LATIN 22. Tacitus. Annals, Book 1 with contemporary history. Credit, 3 hours.

LATIN 23. Horace: Selections from the odes, epodes and satires, with a study of the metre, mythology and literature. Credit, 3 hours.

LATIN 24. Tusculan Disputations, Book 1: A study of Roman Philosophy. Credit, 3 hours.

LATIN 31A. Social life at Rome in the time of Cicero: Library work, thesis. Text-book: Fowler. Taught in 1920-21. Credit, 2 hours.

LATIN 31B. Roman Political Institutions. Taught in 1919-20. Text-book: Abbott. Credit, 2 hours.

LATIN 32. Quintilian. Selections from Books 10 and 12: Discussion of Latin writers. Prerequisite: Latin 11, or equivalent. Credit, 2 hours.

LATIN 33. Advanced Composition. Text-book: Arnold: Latin Composition. Prerequisite: Latin 12. Credit, 2 hours.

LATIN 34. Roman Historians. Text-book: Scool, Mierow and Jones: Selections from Roman Historians. Credit, 2 hours.

LATIN 41. Cicero's Letters. Selected letters. Text-book: Abbott. Credit, 2 hours.

LATIN 42. Suetonius. Selections from the Lives of the Caesars. Text-book: Pike. Credit, 2 hours.

LATIN 43. Vergil. Rapid reading in selected portions from Books 7 to 12 of Vergil's Aeneid. Credit, 2 hours.

LATIN 8, 9 and 10. Vergil's Aeneid. Translation with a study of the metre and of the grammar and mythology; Emphasis is laid on the Aeneid as a work of literature. Credit, 3 hours.

The following courses in Cicero may be offered if necessary:

LATIN 6. Cicero, first term: The first three orations against Catiline with a thorough study of the grammar involved. Five recitations a week. Credit, 3 hours.

LATIN 7. Cicero, second term: The Fourth Oration against Catiline; Manilian Law. Five recitations a week. Credit, 3 hours.

GREEK

GREEK 11. The Elements of Greek. This course is for those who begin the study in College. It aims to secure a thorough mastery of the principal inflections, a careful study of the leading principles of syntax, the acquisition of a small but efficient vocabulary and a facility in reading and writing easy sentences in Greek. Due attention is given to cognate and

derivative words and to comparison with Latin morphology and with Latin and English syntax. Text-book: Gleason and Atherton's First Greek Book. Credit, 5 hours.

GREEK 12. The Elements of Greek. This continues Course 11 and concludes with a special review of irregular verbs and a study of word composition. Credit, 5 hours.

GREEK 13. Xenophon: Anabasis, Book I. There is a rigid insistence upon an adequate and idiomatic translation and an accurate understanding and interpretation of the text. As an important ancillary, especial emphasis is laid upon the syntax of the case, mood, tense and participle. Credit, 5 hours.

GREEK 21. Xenophon: Anabasis, Book II, and Prose Composition. To the studiès emphasized in Course 13 is now added a special consideration of the outstanding stylistic features of Book II, as a propaedeutic to the student's later training in literary appreciation. About half the term is given to prose composition. Credit, 5 hours.

GREEK 22. Xenophon: Anabasis, Books III and IV. This includes a study of Xenophon as man, commander and author, of the historical importance of the expedition, Hellenic tactics, etc. Credit, 5 hours.

GREEK 23. Homer: Iliad. Books I and II, and selections from others, with due attention to the language, verse and poetic qualities of Homer. Credit, 5 hours.

Courses 11, 12, 13, 21, 22 are each taught several times during the year.

The following courses are taught 1920-21 by Professor Oliphant.

GREEK 31A. Herodotus: Selections. A reading of considerable portions of his Historia with a review of the origin of historical composition among the Hellenes and a study of the Ionic dialect. Prerequisite: Greek 22. Credit, 3 hours.

GREEK 32A. Plato: Apology and Crito. A study of the life of Socrates. Credit, 3 hours.

GREEK 32A. Homer: Odyssey. Selections from Books I to XII. Credit, 3 hours.

GREEK 34A. Xenophon: Hellenica or Memorabilia.

Credit, 3 hours.

GREEK 35A. Xenophon: Minor Works, usually the Oeconomicus, Hiero or Agesilaus.

Credit, 2 hours.

GREEK 36A. Greek Prose Composition. The writing of connected discourse in Greek and study of Greek and English idiom.

Credit, 2 hours.

GREEK 37A. Euripides: Alcestis or Ion.

Credit, 2 hours.

GREEK 38A. Cebes: Pinax, and Dion Chrysostomus: Hunters of Euboea, or equivalents.

Credit, 2 hours.

GREEK 41A. Plutarch: Life of Pericles. A study of the "Golden Age of Athens." Prerequisite: Greek, 6 hours among courses 31-38.

Credit, 3 hours.

GREEK 42A. Sophocles: Oedipus Tyrannus, Antigone. The Greek Theatre: Origin of Tragedy.

Credit, 3 hours.

GREEK 43A. Aristophanes: Frogs, Wasps. Origin of Comedy.

Credit, 3 hours.

GREEK 44A. Theocritus: Idylls. Influence on later pastoral poetry.

Credit, 3 hours.

GREEK 45A. Sophocles: Ajax, Electra or Philoctetes.

Credit, 2 hours.

GREEK 46A. New Testament: Gospels. Credit, 2 hours.

GREEK 47A. New Testament: Selected Pauline Epistles.

Credit, 2 hours.

GREEK 48A. New Testament: Acts. Credit, 2 hours.

The following courses are taught 1919-20:

GREEK 31B. Lysias: Selected Orations. Lysias, exemplar of the "Plain Style," illustrates the straight-forward practical oratory.

Credit, 3 hours.

GREEK 32B. Plato: Phaedo. A study of the greatest teacher of Hellenism on the loftiest and universally interesting subject, the immortality of the soul.

Credit, 3 hours.

GREEK 33B. Homer: *Odyssey*. Selections from Books XIII-XXIV. Credit, 3 hours.

GREEK 34B. Thucydides: Selections from I and II and the story of the Sicilian Expedition. Credit, 3 hours.

GREEK 35B. Plato: Minor Dialogues. Usually *Charmides*, *Laches*, *Lysis*, *Euthyphro*, *Ion*, or *Menexenus*. Credit, 2 hours.

GREEK 36B. Greek Prose Composition. A course parallel to Greek 36A, and alternating with it. Credit, 2 hours.

GREEK 37B. Euripides: *Bacchae* or *Medea*. Credit, 2 hours.

GREEK 38B. Anthology of Hellenic Prose. Selections from Wright and Shadwell's *Golden Treasury* or similar works. Credit, 2 hours.

GREEK 41B. Lucian: Selections from *Vera Historia* and Dialogues, illustrative of Lucianic fun and mischief, mastery of satire and modern spirit. Prerequisite: Same as for 41A. Credit, 3 hours.

GREEK 42B. Aeschylus: *Prometheus Vinctus*, *Agamemnon*. Credit, 3 hours.

GREEK 43B. Aristophanes: *Birds* and Menander: Selections. Fragments of Greek Comedy. Credit, 3 hours.

GREEK 44B. Attic Orators: Selections illustrative of various "styles" and authors. Credit, 3 hours.

GREEK 45B. Elegiac, Iambic and Lyric Poets: Selected poems and fragments. Prerequisite: Same as for 41A. Credit, 2 hours.

GREEK 46B. New Testament: Catholic and Pastoral Epistles. Credit, 2 hours.

GREEK 47B. Septuagint: Selections. Credit, 2 hours.

GREEK 48B. New Testament: Selections. Credit, 2 hours.

Undergraduates of marked proficiency may be admitted to courses 51 to 57. These courses will be conducted largely as seminars. Any one of them may be extended to two terms for

more intensive work. Courses in such other fields as Greek Historiography, Romance, Dialectology, Papyrology, Byzantine Authors, Modern Greek, Historical Syntax, Comparative Philology including Phonology, Morphology, Etymology and Semasiology, may be substituted, if much preferred.

GREEK 51. Melic Poets: Selections. The principal fragments of the great lyric poets, Alcman, Alcaeus, Sappho, Anacreon, Simonides, Stesichorus, etc., with longer selections from Pindar and Bacchylides. Also a study of lyric metres. Prerequisite: Greek 42 or equivalent. Credit, 3 hours.

GREEK 52. Greek Drama: Selected Plays and Fragments. A study of the dramatic authors and their art. Credit, 3 hours.

GREEK 53. Greek Epigraphy and Palaeography. A number of inscriptions in different dialects and alphabets may be read from facsimile copies. Photographic reproductions of papyri and manuscripts will be used for the work in palaeography. Prerequisite: Greek 51 or 52. Credit, 3 hours.

GREEK 55. Greek Oratory: Demosthenes: De Corona and illustrative selections from other orators and from literary critics, especially Dionysius Halicarnasseus. Credit, 3 hours.

GREEK 56. Greek Philosophy. The fragments of pre-Socratic philosophy may be read in Ritter and Preller and selections from Aristotle's Nicomachean Ethics or Plato's Republic. Credit, 3 hours.

GREEK 57. Greek Literature. A survey of the literature from Homer to the Alexandrian Age, with illustrative readings in prose and verse. Credit, 3 hours.

ARCHAEOLOGY

ARCHAEOLOGY 41A. Hellenic Archaeology. A study of the architecture, sculpture, terracottas, metal work, coins, engraved gems, vases, mosaics, etc., of ancient Hellas. Fowler and Wheeler: Greek Archaeology. Prerequisite: 90 hours of college work. Taught in 1920-21. Credit, 3 hours.

ARCHAEOLOGY 42A. Hellenic Archaeology. A continuation of 41A, together with a study of the topography,

monuments and public antiquities of Athens as described by Pausanias. Fowler and Wheeler: Greek Archaeology. Frazer: Pausanias. Taught in 1920-21.

ARCHAEOLOGY 41B. Hellenic Private Life. A study of the private life of the Hellene from the cradle to the grave, including childhood, education, food, dress, marriage, condition of women, house and furniture, amusements, religion, slaves, funeral and burial customs, etc. Prerequisite: 90 hours of college work. Taught in 1919-20. Credit, 3 hours.

ARCHAEOLOGY 42B. Hellenic Public Life. A study of the public life of the Hellene, including politics, government, revenues, finance, manufactures, industries, trusts, commerce, exports and imports, insurance, wages, prices, interest, army, navy, fortifications, town planning, public buildings, courts of justice, public charities, professions, urban and rural life, etc. Taught in 1919-20. Credit, 3 hours.

SANSKRIT AND INDO-EUROPEAN PHILOLOGY

The following courses will be given by the Greek department at any time that the demand may justify it, to those students of marked linguistic ability who desire them as a propaedeutic to teaching the Classics or for the cultural value to be derived from such extension of linguistic and literary knowledge. Courses 41-43 and 55-57 are of great value to any student intending to teach any language, even his own.

SANSKRIT 41-43. The Elements of Sanskrit. The essentials of the grammar and the reading in Devanagari of such texts as the Nala Episode from the Mahabharata, the Hitopadeca, the Katha-Sarit-Sagara, the Manava-Dharma-Castra, the Pancatantra, etc. Prerequisite: At least 2 years in each of 2 foreign languages, preferably Latin and Greek.

Credit, 3 hours.

SANSKRIT 45-46. The Rig Veda and the Atharva Veda: Selected Hymns. The sacred literature of ancient India and the earliest monuments of Indo-European speech. Invaluable to the student of philology, comparative literature, comparative religion, folklore, etc.

Credit, 3 hours.

SANSKRIT 47. Vedic Prose: Selections from the Catapatha Brahmana, Aitareya Brahmana, Chandogya Upanishad, Acvalayana Grihya Sutra, etc. Credit, 2 hours.

SANSKRIT 49. Sanskrit Drama: The Cakuntala of Kalidasa—the most admired work of “India’s Shakespeare.” Credit, 2 hours.

PALI 51-52. The essentials of Pali grammar and readings from the Dhammapada, Cullavagga, Petavatthu, Mahavagga, Jatakas, etc. Prerequisite: Sanskrit 45-46. Credit, 3 hours

AVESTAN 51-52. The essentials of the grammar and readings from the Scriptures of Zarathushtra (Zoroaster), the Yasna, Yashts and Vendidad. Valuable for philology and comparative religion. Credit, 3 hours.

LITHUANIAN 51-52. The grammar and readings from the Lithuanian New Testament, the poems of Donalitiūs, the Dainos (folk-songs) and Pasukos (Maerchen). Valuable for philology, folk-lore, etc. Prerequisite: Sanskrit 41-43. Credit, 3 hours.

PHILOLOGY 55-57. Comparative Philology of the Indo-European Speech. The Indo-European vowels, consonants, morphology, suffixes, etc., illustrated from the whole range of Indo-European speech. This course will be accompanied by an account of the early Indo-Europeans, their civilization, etc., and a survey of the Indo-European languages. Prerequisite: Sanskrit 43. Credit, 2 hours.

DEPARTMENT OF MODERN LANGUAGES

Professor Caruthers

Professor Galland

GERMAN

Those students who offer German as a language for a degree must offer nine hours of German, beginning with German 15; the work of German 15 pre-supposes two years previous training in German. This necessary previous training is covered by German-2 units or German-1 unit and Courses 11, 12, 13.

GERMAN 11. Second year German, first term. German Grammar is thoroughly reviewed and a thorough drill is given in conversation and composition. Text-book: Pope's Writing and Speaking German. Prerequisite: German 1 unit.

Credit, 3 hours.

GERMAN 12. Second year German, second term: A continuation of German 11. Easy translation is added to the work in grammar, composition and conversation. "Hoher als die Kirche" or equivalent.

Credit, 3 hours.

GERMAN 13. Second year German, third term: A continuation of German 12: "William Tell."

Credit, 3 hours.

GERMAN 15. Prose Composition. Composition and conversation are systematically practiced. Text-book: Bacon's Prose Composition.

Credit, 3 hours.

GERMAN 16. Survey of German Literature. Text-book: Priest's Survey of German Literature. German 15 is advised.

Credit, 3 hours.

GERMAN 17. Short story course.

Credit, 3 hours.

GERMAN 21A, 22A, 23A are taught 1920-21.

GERMAN 21A. Lessing's Life and Works. Reading of "Nathan Der Weise" and "Minna von Barnhelm." Prerequisite: German 15 and 16. Credit, 3 hours.

GERMAN 22A. Conversation and advanced Prose Composition. Text-book: Osthaus and Biermann's Prose Composition, Part II. Credit, 3 hours.

GERMAN 23A. Heine. The later Romanticism and the life of Heine are studied. Text-book: Heine's Prose Works; "Harz Reise." Credit, 3 hours.

GERMAN 21B, 22B, 23B are taught 1919-20.

GERMAN 21B. Text-books: Schiller's "Jungfrau von Orleans," "Maria Stuart," and selected poems are translated in class. Thomas' Life of Schiller, and "Kabale und Liebe" or "Die Räuber" are assigned for outside reading. Prerequisite: German 15 and 16. Credit, 3 hours.

GERMAN 22B. Conversation and Advanced Prose Composition. Text-book: Pope's Advanced German Composition. Credit, 3 hours.

GERMAN 23B. Text-book: Schiller's "Wallenstein." Work on the Thirty Years' War is assigned for outside reading. Credit, 3 hours.

GERMAN 31. Text-books: Goethe's "Hermann and Dorothea" and "Sesenheim" are translated in class; "Goetz von Berlichingen" and Sime's "Life of Goethe" are assigned for outside reading. Credit, 2 hours.

GERMAN 32. Goethe continued. "Egmont," "Iphigenie" and selected poems are translated. Credit, 2 hours.

GERMAN 33. Nineteenth Century Novel and Novelists. Credit, 2 hours.

GERMAN 41. Faust, Part 1. Prerequisite: German 23. Credit, 2 hours.

GERMAN 42. Advanced Prose Composition and Conversation, or Normal Course for teachers. Credit, 2 hours.

GERMAN 43. "Das Niebelungen Lied"; or, Nineteenth Century Drama. Credit, 2 hours.

FRENCH

Those students who offer French as a language for the degree must offer nine hours of French beginning with French 15; the work of French 15 requires two years' previous training in French. This previous training is covered by French-2 units or by Courses 11, 12, 13.

FRENCH 11. French Grammar: A course covering Part 1 of Fraser and Squair's Grammar with a study of irregular verbs. Gaudel's text is used for a study of idioms and grouped vocabulary. Credit, 5 hours.

FRENCH 12. French Grammar: A continuation of French 11 with review of work already covered; sections from Part II of Fraser and Squair; translation and conversation based on "En France." Credit, 5 hours.

FRENCH 13. Continuation of composition and oral practice of the preceding courses; translation of Mairet's *La Tache du Petit Pierre*, and Daudet's *La Belle Nivernaise*. Credit, 5 hours.

FRENCH 15. French translation with work in grammar and conversation. Text-books: Voltaire's *Zadig*, Halevy's *L'abbé Constantin*. Credit, 3 hours.

FRENCH 16. A course in composition and oral exercises. Text-books: Levi's *Prose Composition*; Augier's *LeGendre de Monsieur Poirier*. Credit, 3 hours.

FRENCH 17. Translation of About's *Le Roi des Montagnes*; Greville's *Dosia*, Sand's *Le Petite Fadette*. Credit, 3 hours.

FRENCH 21. Hugo's *Les Miserables*, with a study of Victor Hugo's life and works. Credit, 3 hours.

FRENCH 22. Survey of French Literature. An outline course treating of the main significant literary movements; lectures; class-room work; reading and reports. Credit, 3 hours.

FRENCH 23. Contemporary novel and short story. Anatole France; Pierre Loti, etc.; class-room work; collateral reading and reports. Credit, 3 hours.

FRENCH 31. The Classical Drama. Corneille's Cid, Racine's Andromaque. Credit, 2 hours.

FRENCH 32. Modern Drama; lectures and assigned reading. Credit, 2 hours.

FRENCH 33A. Rapid reading of modern prose fiction; advanced composition; conversation. Credit, 2 hours.

FRENCH 33B. Teachers' Course. A course open to those with a good reading knowledge of French, with emphasis on essential methods and principles. Credit, 2 hours.

SPANISH

Those students who offer Spanish as a language for a degree must offer nine hours of Spanish beginning with Spanish 15; the work of Spanish 15 requires two years' previous training in Spanish. This previous training is covered by Spanish-2 units or Courses 11, 12, 13.

SPANISH 11. A first term course in essential elements of Spanish covering DeVitis' Grammar and selections from the "Spanish Reader" by Roessler and Remy. Credit, 5 hours.

SPANISH 12. A continuation of Spanish 11 with added work in idioms, construction and prose composition. Text-book: A Trip to South America. Credit, 5 hours.

SPANISH 13. A continuation of Spanish 12 with more advanced composition and translation; Cuentos Modernos. Credit, 5 hours.

SPANISH 15. Translation: Cuentos Castellanos; Valdes' Capitan Venano. Credit, 3 hours.

SPANISH 16. Spanish Commercial Correspondence. Translation, Altamirano's La Nivada en las Montanas. Credit, 3 hours.

SPANISH 17. Cabellero's Un Servilon y Un Liberalito, Taboada's Cuentos Alegres. Credit, 3 hours.

SPANISH 21. Valdés's José. Alarcon's Novelas Cortas Escogidas. Credit, 3 hours.

SPANISH 22. Cervantes's Don Quijote. Credit, 3 hours.

SPANISH 23. Valdés's La Hermana San Sulpicio. Credit, 3 hours.

DEPARTMENT OF SCIENCES AND MATHEMATICS

Chemistry: Professor Sieplein, Professor Hoyt

Physics: Professor Harmon, Professor Biles

Astronomy: Professor Harmon

Mechanical Drawing: Professor Harmon

Biology, Botany, Zoology, Geology: Professor Miller

Mathematics: Professor Ramsey, Professor Biles

CHEMISTRY

The course in General Chemistry (taught as Chemistry 11, 12, 13) is designed to give an understanding of the principles which have made modern chemistry possible and to form a groundwork for later studies in both inorganic and organic chemistry. The course deals with the facts of chemistry but emphasizes the relations of these facts to the fundamental theories, e. g. the kinetic molecular hypothesis; chemical equilibrium and the law of mass action; electrolytic dissociation as a guide to the chemistry of solutions, to the study of valence and of the processes of oxidation and reduction. Smith's and Moore's Calculations in Chemistry is used in the study of stoichiometric principles.

CHEMISTRY 11. The class work deals with the non-metallic elements but emphasizes the underlying principles. The laboratory assignments aim to give an understanding of the practical application of these principles. Text-books: Smith's General Chemistry for Colleges, Revised, Chapters 1 to 22; Bray and Rosenstein's Laboratory Manual of General Chemistry, exercises 1 to 13, 17. Prerequisite: Chemistry, 1 unit. 3 recitations and 2 laboratory periods a week.

Credit, 5 hours.

Professor Sieplein.

CHEMISTRY 12. The class work completes the study of the non-metallic elements and deals with the commercial applications of the metals. The metallic elements are studied in the laboratory. Text-books: Smith's General Chemistry for Colleges, Revised, Chapters 23 to 45; Bray and Rosenstein's Manual of General Chemistry, complete; Stieglitz's Qualitative Analysis, Volume 11, metallic ions. 3 recitations and 2 laboratory periods a week. Credit, 5 hours.

Professor Sieplein.

CHEMISTRY 13. The theories of chemistry are developed and applied to the work of the preceding terms. The laboratory work consists of a study of the acid ions and the development of the schemes for qualitative analysis: six simple unknown mixtures of at least three substances are analyzed for both acid and basic constituents. Text-books: Hildebrand's Principles of Chemistry; Stieglitz's Qualitative Analysis, Volume 11, complete. Prerequisite: Chemistry 12. 3 recitations and 2 laboratory periods a week. Credit, 5 hours.

Professor Sieplein.

CHEMISTRY 14. Qualitative Analysis, elementary course: The study of the various types of equilibria and the properties of the elements as a basis for qualitative schemes. Text-books: Morgan's Qualitative Analysis; Bailey and Cady's Qualitative Analysis. 3 recitations and 2 laboratory periods a week. Credit, 5 hours.

Professor Hoyt.

CHEMISTRY 17A. Chemical Arithmetic: Practice in the calculations involved in general chemistry. This course must precede Chemistry 11 or in the case of students presenting Chemistry for entrance must be taken during the same term as Chemistry 11. Text-book: Hale's Calculations of Chemistry. 3 recitations. Credit, 3 hours.

Professor Hoyt.

CHEMISTRY 18. An elementary course in Organic Chemistry designed, primarily, for those preparing for Medical Schools. The work deals very largely with the aliphatic compounds. Text-books: Cohen's Theoretical Organic Chemis-

try, and Cohen's Practical Organic Chemistry. Prerequisite: Chemistry 11, 12, 13. 5 recitations and 2 laboratory periods a week.

Credit, 7 hours.

Professor Sieplein.

Additional laboratory work can be arranged for those desiring it.

CHEMISTRY 21. Advanced Qualitative Analysis: The detection of the ions of metals and non-metals by solution methods, special attention being given to the physico-chemical basis of the methods of separation and identification. The laboratory work includes the analysis of rocks, ores, alloys and commercial materials. Text-book: Noyes' Qualitative Chemical Analysis. 3 recitations and 2 laboratory periods a week.

Credit, 5 hours.

Professor Hoyt.

CHEMISTRY 22. Elementary Quantitative Analysis: The principles of quantitative analysis from the standpoint of chemical equilibrium. Gravimetric, volumetric, electrolytic and absorption methods of representative character are studied as types. The laboratory work includes fifteen determinations on simple natural substances. Text-book: Mahin's Quantitative Analysis, Part I. 3 recitations and 2 laboratory periods a week.

Credit, 5 hours.

Professor Hoyt.

CHEMISTRY 23. Advanced Quantitative Analysis: A study of practical methods for the determination of rocks, coal, coke, gas, oils, water, alloys, steel, cement and fertilizer. Those methods are chosen for practice which are in current use in the industrial laboratories of the section. Text-book: Mahin's Quantitative Analysis, Part II. 3 recitations and 2 laboratory periods a week.

Credit, 5 hours.

Professor Hoyt.

CHEMISTRY 25. History of Chemistry, 1st term. The subject matter deals with the early developments of the science and places the main emphasis on the growth and use of the atomic and molecular hypotheses, of valence and of the periodic law with reference to inorganic chemistry. 2 recitations or lecture periods a week.

Credit, 2 hours.

Professor Sieplein.

CHEMISTRY 26. History of Chemistry, 2nd term. Valence, chemical equilibrium, electrolytic dissociation are treated and the development of organic chemistry is particularly stressed. 2 recitations or lecture periods a week.

Credit, 2 hours.

Professor Sieplein.

CHEMISTRY 27. History of Chemistry, 3rd term. The subject is outlined in a broader way, especially in reference to the development of the modern theories of matter and their bearing on the interrelation of science and philosophy. 2 recitations or lecture periods a week.

Credit, 2 hours.

Professor Sieplein.

CHEMISTRY 31. Industrial Chemistry: The study of the chemical and engineering phases of the manufacture of chemical materials: the technology of fuels, acids and alkalies, pottery and cement, fertilizers, paint and varnish, and explosives. Trips are arranged to plants in the district where an opportunity is given to see the processes involved. These trips form a most valuable part of an industrial chemist's training and the College is very fortunately located in the center of the chemical industry where an opportunity is presented for these trips. Text-book: Rogers' Elements of Industrial Chemistry. 3 recitations a week.

Credit, 3 hours.

Professor Hoyt.

CHEMISTRY 32. Industrial Chemistry: The manufacture of coke and illuminating gas, coal tar by-products, dye stuffs, petroleum products, soap and fats, essential oils, rubber, sugar and starch, alcohol, textiles, paper and leather. Text-book: Rogers' Elements of Industrial Chemistry. 3 recitations a week.

Credit, 3 hours.

Professor Hoyt.

CHEMISTRY 33. Industrial Chemistry: A study of the metallurgy of iron and steel. The heat balance in the furnace and the furnace reactions are thoroughly studied. The student is given practice in metallography and is shown its importance. A trip to neighboring cities is arranged each year where the

opportunity is afforded of observing the processes in operation on a commercial scale. Text-book: Wysor's Metallurgy. 3 recitations a week.

Credit, 3 hours.

Professor Hoyt.

CHEMISTRY 41. Principles of Organic Chemistry: A study of the principles and most prominent compounds of Organic Chemistry, as a preparation for later intensive work. Text-book: Chamberlain's Organic Agricultural Chemistry, Part I. Prerequisite: Chemistry 11, 12, 13. 3 recitations and 2 laboratory periods a week.

Credit, 5 hours.

Professor Sieplein.

CHEMISTRY 42. Organic Chemistry; Aliphatic Compounds: A detailed study dealing with the alcohols, acids, sugars, compounds containing nitrogen and sulfur. The laboratory assignment is the preparation of fifteen compounds. Text-books: Holleman's Textbook of Organic Chemistry; Cohen's Practical Organic Chemistry. Prerequisite: Chemistry 41. 3 recitations and 2 laboratory periods a week.

Credit, 5 hours.

Professor Sieplein.

CHEMISTRY 43. Organic Chemistry; Aromatic Compounds: A course similar to Chemistry 42 but dealing with cyclic compounds used as drugs and dyes. Text-books: Holleman's Text-book of Organic Chemistry; Cohen's Practical Organic Chemistry. 3 recitations and 2 laboratory periods a week.

Credit, 5 hours.

Professor Sieplein.

CHEMISTRY 45. Physical Chemistry: The theories of matter, the atomic hypothesis, the electron theory and the relation of physical properties to chemical constitution. The laboratory work includes the calibration of a spectroscope and the determination of the wave lengths of the principle lines, determination of surface tension, viscosity, density, refractive index and vapor density. Text-book: Bigelow's Theoretical and Physical Chemistry. 3 recitations and 1 laboratory period a week.

Credit, 4 hours.

Professor Hoyt.

CHEMISTRY 46. Physical Chemistry: Electrolytic dissociation, optical activity, colloids, phase rule, and the vapor pressure of liquids and solutions. Thermodynamic treatment is accorded the processes on gases at the critical. Determinations of molecular weight by freezing point, boiling point, and vapor pressure methods, transition points, velocities of reactions, partition coefficients, and heat of reaction as well as the preparation of colloids are carried out in the laboratory. Text-book: Bigelow's Theoretical and Industrial Chemistry. 3 recitations and 1 laboratory period a week. Credit, 4 hours.

Professor Hoyt.

CHEMISTRY 47. Physical Chemistry: Chemical equilibrium, electrochemistry and actinochemistry. Determinations of solubilities, equilibria and concentration by potentiometer methods, electromotive force of concentration and gas cells, single potentials, conductivities, and transport numbers are made in the laboratory. Text-book: Bigelow's Theoretical and Physical Chemistry. 3 recitations and 1 laboratory period a week. Credit, 4 hours.

Professor Hoyt.

CHEMISTRY A. Principles of Chemistry. This is a general course in the modern theories and principles of chemistry for those students who do not desire to specialize in the science, but wish an acquaintance with the modern theories and recent developments. Text-books: Smith's Intermediate Chemistry and Bailey and Cady's Qualitative Analysis. Prerequisite: Chemistry, 1 unit. 3 recitations and 2 laboratory periods a week. Credit, 5 hours.

Professor Sieplein.

This is an elective course and is not available as prescribed chemistry for the B. S. degree.

CHEMISTRY 1. Elementary Course in Chemistry: A study of important non metals together with the atomic theory. 3 recitations and 2 laboratory periods a week. Credit, 3 hours.

Professor Hoyt.

CHEMISTRY 2. Elementary Course, second term. The metals are taken up in connection with the periodic law. In-

dustrial processes utilizing chemistry are stressed. 3 recitations and 2 laboratory periods a week.

Credit, 3 hours.

Professor Hoyt.

CHEMISTRY 4. A general course dealing with the fundamental theories of chemistry. The non metals are first considered and then the metals. 5 recitations and 4 laboratory periods a week.

Credit, 6 hours.

Professor Hoyt.

PHYSICS

PHYSICS 21A. Properties of matter and elementary theory of mechanics. Text-books: Kimball's College Physics; Conrad's Laboratory Manual with the experiments amplified and supplemented. Prerequisite: Mathematics 11. 3 recitations and 1 laboratory period a week.

Credit, 4 hours.

PHYSICS 22A. Elementary theory of heat, magnetism and static electricity. 3 recitations and 1 laboratory period a week.

Credit, 4 hours.

PHYSICS 23A. The elements of current electricity, sound and light. 3 recitations and 1 laboratory period a week.

Credit, 4 hours.

PHYSICS 21B, 22B, 23B, are courses paralleling the above, designed for students who have not completed preparatory physics, or, those who need additional laboratory practice. This additional laboratory practice is necessary for those intending to meet the requirements for entrance to medical schools. The theory is presented with this requirement in mind. The same laboratory manual is used but 50 experiments are required for the complete course.

Credit, 5 hours each term.

PHYSICS 21, 22, and 23 afford a general course in which a student becomes familiar with the elementary principles of the science and their applications. The subject matter is presented through the means of very fully illustrated experimental lectures in which the lantern is much used. The student is frequently referred to the departmental library. He is required to solve a large number of problems and write reports on his laboratory work. Two weeks of weather observation is included in the laboratory course.

PHYSICS 25, Physics 26, and Physics 27 constitute a course in Household Physics corresponding to the above in all essential respects, but with the special stress on the application of physics to the home. Text-book: Lynde's Physics of the Household. The course is arranged with 1 or 2 laboratory periods. 3 recitations a week. Credit, 4 or 5 hours.

PHYSICS 31. Elementary Mechanics and Heat; Mechanics of Solids. Text-book: Franklin and McNutt's Mechanics and Heat. Special and selected experiments from standard manuals for college physics. Prerequisite: Physics 23. 2 recitations and 1 laboratory period a week.

Credit, 3 hours.

PHYSICS 32. A continuation of Physics 31; Mechanics of Fluids and Heat. 2 recitations and 1 laboratory period a week.

Credit, 3 hours.

PHYSICS 33. Electricity and Magnetism. Text-book: Franklin and McNutt's Electricity and Magnetism. 2 recitations and 1 laboratory period a week.

Credit, 3 hours.

PHYSICS 31, 32, 33 afford a more technical course than Physics 21, 22 and 23, and are an introduction to Theoretical and Practical Physics. The many problems used are of an especially practical nature and of greater difficulty than those of Physics 21, 22 and 23. Thirty laboratory experiments are required in the year's work. These are more thorough and of greater difficulty than those of the elementary course. They require the use of more accurate apparatus and demand greater skill of manipulation and observation. The reports cover the theory and the analysis of data in a thorough manner.

PHYSICS 41. Teachers' course in Physics. Text-book: Twiss: The Teaching of Science. Prerequisite: Physics 23. 2 recitations and 1 laboratory period a week.

Credit, 3 hours.

PHYSICS 42. Continuation of Physics 41. 2 recitations and 1 laboratory period a week.

Credit, 3 hours.

PHYSICS 43. Continuation of Physics 42. 2 recitations and 1 laboratory period a week.

Credit, 3 hours.

PHYSICS 41, 42 and 43 are intended for those preparing to teach high school physics. The work consists of a discussion

of the methods of teaching of courses, of text-books, of catalogues of supply houses, of the equipment of the laboratory, of care and construction of apparatus of direction of the laboratory work and of giving experimental lectures before a class. In general the point of view taken is that of the teacher.

PHYSICS 47A. Radio-Telegraphy: A descriptive and practical course dealing further than in 23 and 33 with the principles of electrostatic and electromagnetic induction, and of the electron and electromagnetic wave theories. Laboratory work consists of the measurement of the various capacities and inductances of the receiving and sending apparatus, wave length of aerials, etc., the practice of the code, and of sending and receiving. Text-book: Jansky's Principles of Radio-Telegraphy. Taught Summer Term, 1920, and Spring Term, 1921. 3 recitations and 2 laboratory and code practice periods a week. Credit, 4 hours.

PHYSICS 47B. Light and Sound: A course corresponding to Physics 31, 32 and 33, being of the same grade and character. Text-book: Franklin and McNutt's Light and Sound. Taught in the Spring Term, 1920. Prerequisite: Physics 23. 2 recitations and 1 laboratory period a week. Credit, 3 hours.

The following courses in Elementary Physics are offered:

PHYSICS 1. Elementary Physics, first term: Class lectures and recitations on the elements of mechanics and heat, with twenty laboratory experiments. Text-book: Mann and Twiss. 3 recitations and 2 laboratory periods a week. Credit, 3 hours.

PHYSICS 2. Elementary Physics, second term: A continuation of physics 1. Lectures on electricity, magnetism, sound and light, with ten laboratory experiments. 3 recitations and 2 laboratory periods a week. Credit, 3 hours.

ASTRONOMY

ASTRONOMY 35. Astronomy: A short but intensive descriptive course, dealing with the systems of reference

cycles, the earth as a heavenly body, the moon, the sun, planets, stars, and nebulae. Text-book: Young's Manual. Taught Fall and Summer terms. Credit, 5 hours

METEOROLOGY 36. Meteorology: A brief study of the phenomena of the atmosphere, the weather map and weather forecasting. Text-book: Milham. Taught in the Winter term. Credit, 5 hours.

MECHANICAL DRAWING

The aim of the first year course is to become familiar with the various styles of lettering and to acquire skill in their formation, to become familiar with the drawing instruments and their use and to apply them in making geometrical drawings and projections used in the solution of the problems given in the course.

First term. Free hand drawing, lettering and geometrical drawing. Text-book: Thompson, Books 1 and 2. Credit, 5 hours.

Second term. Projection and perspective: advanced lettering. Text-book: Tracey. Credit, 5 hours.

Third term. Continuation of the second term work. Credit, 5 hours.

The intent of the second year work is to give the student such knowledge as will prepare him to pursue a course in engineering and such practice in drawing as will qualify him to do ordinary commercial work.

First term. Free hand sketching of machine parts, and scale drawing of the same. Credit, 5 hours.

Second term. Complete drawing of machines. Credit, 5 hours.

Third term. Elementary Machine Design. Credit, 5 hours. Advanced work in machine design and mechanism is arranged to meet the needs of the student.

BIOLOGY

The biological work as here outlined aims to deal with three classes of students. To those who desire general knowledge of biological subjects are recommended Courses 11, 12, 13, 16 and 17.

Those who are planning to enter medical schools should choose Courses 11, 16 and 17. These cover the standard requirements of the best schools.

Those who intend to teach Biology or to specialize in the science should, after the required Freshman preparation, elect from among Courses 21, 22, 23, 31, 32, 33, 41, 42, 43.

Students presenting Biology as a major for degree B. S. are required to present Biology 21, 22, 23 or Biology 31, 32, 33, or Biology 41, 42, 43.

BIOLOGY 11. General Biology. This course is introductory to both botany and zoology. A study of the general principles and laws in accordance with which living structures develop, and carry on their activities. A fundamental course for those who are unable to take up the more extended work. 3 recitations, 2 laboratory periods a week. Credit, 5 hours.

BOTANY

BIOLOGY 12. General Botany: A study of the development, structure, and physiology of the higher plants. Text-book: Percival's Agricultural Botany. 3 recitations, 2 laboratory periods a week. Credit, 5 hours.

BIOLOGY 13. General Botany, second term. This course aims to familiarize the student with the lower groups of plants, being a resume of the algae, fungi, mosses, and ferns. It deals especially with plant development, structure and relationships. Text-book: Percival's Agricultural Botany. Supplementary reading. 3 recitations, 2 laboratory periods a week. Credit, 5 hours.

BIOLOGY 15. Economic Botany: A general course in which emphasis is placed upon the economic value of woods, plants, etc. Credit, 5 hours.

BIOLOGY 21. Morphology of Thallophytes: A systematic and comparative study of the algae and fungi. Text-book: Coulter, Barnes and Cowles, Volume 1, Part 1, supplemented by reference work. Prerequisite: Biology 13 or equivalent. 2 recitations, 2 laboratory periods a week.

Credit, 4 hours

BIOLOGY 22. Morphology of Bryophytes and Pteridophytes: A systematic study of the liverworts, mosses, ferns, and the fern allies. Text-book: Coulter, Barnes and Cowles, Volume I, Part I. 2 recitations, 2 laboratory periods a week.

Credit, 4 hours.

BIOLOGY 23. Morphology of Spermatophytes. This course is a continuation of Biology 21 and 22, but deals with the higher plants (gymosperms and angiosperms) living and fossil. Text-book: Coulter, Barnes and Cowles, Volume I, Part I. 2 recitations, 2 laboratory periods a week.

Credit, 4 hours.

BIOLOGY 26. Evolution, Genetics, Eugenics: Review of prominent theories of organic evolution; prominent theories of heredity and a study of recent work in genetics; the whole summarized in a comparative treatment of eugenics; reference reading and a number of short papers. Text-book: Walter's Genetics.

Credit, 3 hours.

BIOLOGY 27A. Applied Ecology: A general course in crop adaptation, dealing with the origin, culture, and pathology of our most important economic plants; reference reading and a term paper.

Credit, 3 hours.

BIOLOGY 27B. Systematic Botany: A study of plant species of this region; a comparative study of plant parts from a phylogenetic viewpoint. Text-book: Gray's New Manual of Botany. Recitation and field work.

Credit, 2 hours.

BIOLOGY 41. Botanical Microtechnique: A course dealing with the methods of collecting, killing, fixing, imbedding, sectioning; theory and principles of staining. Text-book: Chamberlain's Methods in Plant Histology. Prerequisite: Biology 12 or 13. Biology 21, 22, 23 are advised. 1 recitation, 3 laboratory periods a week.

Credit, 4 hours.

BIOLOGY 42. Animal Microtechnique. This course is correlative with Biology 41, but deals with the preparation and study of animal tissues. Text-book: Guyer's Animal Micrology. 1 recitation, 3 laboratory periods a week.

Credit, 4 hours.

BIOLOGY 43. Cytology: A careful study of the cell in development, structure, reproduction, and heredity; lectures, reference reading and a term paper. Text-book: Wilson's The Cell. 1 recitation, 3 laboratory periods a week.

Credit, 4 hours.

ZOOLOGY

BIOLOGY 16. General Invertebrate Zoology. This course deals with chosen representatives of the invertebrate phyla, special attention being given to anatomy and life histories as evidences of relationship. Text-book: Hegner's College Zoology. Prerequisite: Biology 11 or equivalent. 3 recitations, 2 laboratory periods a week.

Credit, 5 hours.

BIOLOGY 17. General Vertebrate Zoology: Comparative anatomy and development of chosen representatives of the vertebrate classes. Text-book: Hegner's College Zoology. 3 recitations, 2 laboratory periods a week.

Credit, 5 hours.

BIOLOGY 31. Invertebrate Zoology: A systematic survey of the invertebrates; class room dissections of representative forms; lectures on the embryology and the phylogeny of the various groups; reference reading and text-book work. Text-book: Hertwig's Manual of Zoology. 2 recitations and 2 laboratory periods a week.

Credit, 4 hours.

BIOLOGY 32. A continuation of Biology 31. Special emphasis will be laid on the insects and their allies. 2 recitations and 2 laboratory periods a week.

Credit, 4 hours.

BIOLOGY 33. Vertebrate Morphology: A continuation of Biology 32, but dealing with the vertebrates. 2 recitations and 2 laboratory periods a week.

Credit, 4 hours.

GEOLOGY

GEOLOGY 11. Economic Geology: A general course with emphasis on rock formations, ore deposits, coal and oil resources.

Credit, 5 hours.

MATHEMATICS

MATHEMATICS 6. Solid Geometry. Text-book: Wentworth's Plane and Solid Geometry (Revised), Books 6 to 8. Five recitations.

Credit, 3 hours.

MATHEMATICS 11. Plane Trigonometry. This course presupposes a good working knowledge of elementary algebra, intermediate algebra through quadratics, and plane geometry. Special emphasis is laid upon the solution of the right triangle, the solution of the oblique triangle, and the acquiring of facility in the use of logarithms. The aim of this course is to acquaint the student with the fundamental definitions, laws, and relations in plane trigonometry sufficiently, not only to enable him to solve problems in plane triangles with facility, but also to pursue more advanced courses successfully. Text-book: Rothrock's Plane and Spherical Trigonometry with tables, Chapters 1-8. Prerequisite: Algebra, $1\frac{1}{2}$ units; Geometry, 1 unit. Credit, 4 hours.

MATHEMATICS 12. College Algebra, First Course. The prerequisites for this course are the same as for Mathematics 11. Fundamental notions and definitions are emphasized, some topics from intermediate algebra are reviewed and treated more critically, and an introduction is given to a few topics of more advanced work. The aim of this course is to train the student in more critical thinking, and to help him to gain an insight into and power to deal with quantitative relations in general. Text-book: Skinner, chapters 1-8. Prerequisite: Algebra, $1\frac{1}{2}$ units; Geometry, 1 unit. Credit, 4 hours.

MATHEMATICS 13. College Algebra, Second Course. This course is a continuation of Mathematics 12 in matter, aim, and method. Among the topics studied are: complex numbers, theory of equations, infinite series, permutations and combinations, probability, and determinants of the fourth order. Text-book: Skinner. Credit, 4 hours.

MATHEMATICS 21. Analytic Geometry, First Course: An introduction to the analytic geometry of two dimensions which presupposes a good working knowledge of plane trigonometry and the first course in college algebra. The work includes a study of Cartesian co-ordinates, loci, the straight line, the circles, polar co-ordinates, and transformation of co-ordinates. Text-book: Ashton. Credit, 3 hours.

MATHEMATICS 22. Analytic Geometry, Second Course: A continuation of the work begun in the first course, including a study of conic sections, tangents and normals, diameters, poles and polars, the general equation of the second degree, and higher plane curves. Text-book: Ashton. Credit, 3 hours.

MATHEMATICS 23. Advanced Trigonometry. The greater part of the term is devoted to a study of spherical trigonometry. The solution of right and oblique spherical triangles and their applications to navigation and astronomy are studied. A few advanced topics from plane trigonometry are treated in the latter part of the course. Text-book: Rothrock. Credit, 3 hours.

MATHEMATICS 25. Plane Surveying. The class work is supplemented by field work in which the practical phase of the work is emphasized. The field work for the course includes the measurement of vertical angles and horizontal angles, compass surveys of areas, transit survey of areas, relocation of lost corners, leveling for profile and grading for sewers. The class work will include the solution of problems from the data obtained, as well as extended problem work from the text. Text-book: Breed and Hosmer's Principles and Practice of Surveying, Vol I. 2 recitations and 1 hour of field work. Credit, 3 hours.

MATHEMATICS 26. Advanced Surveying. This will include precise methods, laying out city lots, laying out of railroad curves, railroad grading, street and public road surveying, and, at the latter part of the term, detailed work in topography by approximate and by stadia methods. Text-book: Breed and Hosmer's Principles and Practice of Surveying, Volumes I and II. 2 recitations and 2 hours of field work. Credit, 4 hours.

MATHEMATICS 32. Differential Calculus: An introductory course with applications of the fundamental principles to the solution of problems in geometry, maxima and minima, points of inflection and curve tracing. Expansion of functions and infinite series are also considered. Text-book: Granville's Elements of the Differential and Integral Calculus. Credit, 3 hours.

MATHEMATICS 33. Integral Calculus: An elementary course presupposing a good working knowledge of the elements of the differential calculus as given in Mathematics 32. The course includes applications of the principles of integration to the solution of simple problems in geometry, mechanics, and physics. Text-book: Granville's Elements of the Differential and Integral Calculus. Credit, 3 hours.

In addition to the above collegiate courses in mathematics there will be offered, from time to time, when there is a sufficient demand for them, the following advanced courses, which may be arranged either as two or three hour courses:

MATHEMATICS 34. Calculus III: A continuation of the work in calculus including selected topics from both differential and integral calculus, with emphasis upon the application of the integral calculus. Text-book: Granville. Credit, 3 hours.

MATHEMATICS 37. Analytical Mechanics. Credit, 3 hours.

MATHEMATICS 39. History of Mathematics. Credit, 3 hours.

MATHEMATICS 41. Solid Analytics. Credit, 3 hours.

MATHEMATICS 42. Theory of Equations. Credit, 3 hours.

MATHEMATICS 44. Limits and Series. Credit, 3 hours.

MATHEMATICS 47. Differential Equations. Credit, 3 hours.

DEPARTMENT OF COMMERCE

Professor Walters, Miss Smith

ACCOUNTING

ACCOUNTING 11. Introductory Bookkeeping: A study is made of the theory of accounts and the functions of particular accounts, of the trial balance, business and financial statements and of closing the ledger by journal entries. Exercises are given in journalizing. Five recitations a week.

Credit, 4 hours.

ACCOUNTING 12. Business Papers and Books of Original Entry: A study of invoices, customer's monthly statements, checks, receipts, deposit tickets, depositor's monthly statements and of cash book, purchase journal and sales journal. Five recitations a week.

Credit, 4 hours.

ACCOUNTING 13. Bookkeeping and Business Transactions: Practical work in the proper entries for various business transactions. A thorough study is made of drafts and draft entries, of the difference between single and double entry bookkeeping and the process of changing from single to double entry. Five recitations a week.

Credit, 4 hours.

ACCOUNTING 21. Bookkeeping and Accounting as applied to a retail business and to a commission business. Five recitations a week.

Credit, 3 hours.

ACCOUNTING 22. Bookkeeping and Accounting as applied to a wholesale business and to a manufacturing corporation. Five recitations a week.

Credit, 3 hours.

ACCOUNTING 23. Advanced Accounting: A study of accounting problems, statements, special columns, depreciation, etc. Five recitations a week.

Credit, 3 hours.

ACCOUNTING 31. Bank Bookkeeping and Accounting: A study of the special books required for national banks, and of bank practices. Credit, 3 hours.

ACCOUNTING 32. Cost Accounting for a Manufacturing Business: Practical applications to a gas engine manufacturing business. Credit, 3 hours.

ACCOUNTING 33. Cost Accounting for a Manufacturing Business: This course is a continuation of Accounting 32. Credit, 3 hours.

BUSINESS ADMINISTRATION

BUSINESS ADMINISTRATION 22. Economics: A study of the economic basis of business, types of organization, interior organization, theory of costs, buying and selling, trade marks, trade names and trade secrets. Credit, 3 hours.

BUSINESS ADMINISTRATION 41. Office Management: A study of the organization and standardization of the stenographic, accounting, credit, collection, sales, advertising and employment departments of a firm, and the control of personnel and production. Credit, 3 hours.

BUSINESS ADMINISTRATION 42. Office Management: A continuation of Business Administration 41. Credit, 3 hours.

BUSINESS ADMINISTRATION 43. Business Finance: A study of the capitalization of business, stocks, bonds, watered stock, mortgages, amortization, government regulation of corporation finances, syndicates, the stock exchange, liens and reorganization. Credit, 3 hours.

BUSINESS ADMINISTRATION 45. Labor Problems: A study of the evolution and character of present-day problems of labor—labor legislation, wages, hours of work, unemployment, strikes, labor unions, arbitration, profit sharing plans, welfare work, etc. Same as Economics 34. Credit, 3 hours.

BUSINESS ADMINISTRATION 47. Psychology of Business: A study of the principles of psychology as applied to business management, buying, selling, advertising and control of employees. Credit, 3 hours.

COMMERCE

COMMERCE 13. History of Commerce: An historical study of the economic, commercial and industrial development of the ancient nations, the Italian Republics, the Hanseatic League, Holland, the modern European nations, the United States and Latin America, with special emphasis on the Industrial Revolution and its effects. Credit, 3 hours.

COMMERCE 21. Commercial Correspondence: A study of the various types of letters used in business, form, style, and the underlying principles affecting them. Work will be given in letters ordering goods, and asking payment of bills, letters of inquiry, sales letters, routine letters, announcements, letters of recommendation and application, form letters and follow-up letters. Credit, 3 hours.

COMMERCE 22. Advertising: This course will present the fundamental principles of advertising and show its relation to business as a whole. It includes a study of advertising copy, rates, campaigns, media, trade marks and trade names, etc. Credit, 3 hours.

COMMERCE 23. Salesmanship: This course will deal with the principles of personal salesmanship. Although salesmanship is rapidly becoming a science, the importance of personality and of good common sense in selling will not be overlooked. Credit, 3 hours.

COMMERCE 25. Commerce and Industry: A study of materials of commerce, agricultural, mineral and manufactured, including the processes involved, the importance of by-products, the transportation of goods and the localization of industry. Credit, 3 hours.

COMMERCE 26. Foreign Commerce: A study of the principle commercial countries of the world and their products, the volume and character of their trade, and the geographic influence and governmental policies affecting the commercial standing of these countries. The possibilities of each country as a market for American goods will be considered. Credit, 3 hours.

COMMERCE 27. Commerce and Industry of Western Pennsylvania: A study of the natural resources, industries,

commerce, transportation facilities and future prospects of Western Pennsylvania. Credit, 3 hours.

COMMERCE 42. Commercial Law: The law of contracts, negotiable paper, agency, partnerships, sales of personal property, corporations, real estate and insurance.

Credit, 3 hours.

COMMERCIAL EDUCATION

COMMERCIAL EDUCATION 11. Methods in Commercial Education: The best methods of presenting courses in bookkeeping, shorthand, typewriting, commercial geography, commercial law, commercial correspondence, arithmetic, commercial history and elementary economics. (Taught only in the Summer Session.)

Credit, 3 hours.

COMMERCIAL EDUCATION 12. The Commercial High School and its Problems: The relation of the commercial high school to the business community, the academic high school and the college, the preparation of the commercial teacher, the equipment of the commercial department, supervision of commercial work by state and nation and courses of study. (Taught only in the Summer Session.)

Credit, 3 hours.

COMMERCIAL EDUCATION 13. Methods of teaching Shorthand and Typewriting: A thorough study with practice periods in teaching shorthand and typewriting, Pitmanic systems. (Taught only in the Summer Session.)

Credit, 3 hours.

STENOGRAPHY

STENOGRAPHY 11. The principles of shorthand up to and including the N and F hooks, word signs and simple dictation.

Credit, 5 hours

STENOGRAPHY 12. The principles of shorthand from the N and F hooks up to and including the Doubling Principle, review of all of word signs and taking of simple dictation.

Credit, 5 hours.

STENOGRAPHY 13. The principles of shorthand from the Doubling Principle to end of text-book, review of all of word signs, taking of simple dictation and emphasizing of phrasing.

Credit, 5 hours.

STENOGRAPHY 21. A review of the principles of shorthand; daily dictation of simple letters and articles; drill on English and shorthand vocabulary; reading of forty pages of printed shorthand. Speed of eighty-five words in one minute is required. Credit, 5 hours

STENOGRAPHY 22. Dictation of letters, newspaper and magazine articles, speeches and law work; drill on English and shorthand vocabulary; reading of fifty pages of printed shorthand. Speed of one hundred words in one minute is required. Credit, 5 hours.

STENOGRAPHY 23. Dictation of letters, newspaper and magazine articles, speeches, legal work and specifications; drill on English and shorthand vocabulary; reading of seventy-five pages of printed shorthand. Speed of five hundred words in five minutes is required. Credit, 5 hours.

TYPEWRITING

TYPEWRITING 11. Beginning Typewriting: The learning of the key-board by the touch method; simple dictation; practice on words and sentences. (No credit given unless taken in connection with Stenography.) Five recitations a week. Credit, 2 hours.

TYPEWRITING 12. Continuation of Typewriting 11; writing of words, sentences and letters; study of the mechanism of the typewriter. (No credit given unless taken in connection with Stenography.) Five recitations a week. Credit, 2 hours.

TYPEWRITING 13. Continuation of Typewriting 12; writing of letters and legal forms; complete mastery of the key-board required; tabulating. (No credit given unless taken in connection with Stenography.) Five recitations a week. Credit, 2 hours.

TYPEWRITING 21. Speed practice; writing of words and sentences, but with the object of speed rather than mastery of the key-board; dictation; transcription of shorthand notes. Speed of thirty words a minute required for a period of ten minutes. (No credit given unless taken in connection with Stenography.) Five recitations a week. Credit, 2 hours

TYPEWRITING 22. Speed practice; speed sentences and articles; dictation and transcription of shorthand notes. Speed of forty words a minute required for a period of fifteen minutes. (No credit given unless taken in connection with Stenography.) Five recitations a week. Credit, 2 hours.

TYPEWRITING 23. Speed practice; speed sentences and articles; dictation and transcription of shorthand notes; office practice. Speed of fifty words a minute required for a period of twenty minutes. (No credit given unless taken in connection with Stenography.) Five recitations a week. Credit, 2 hours.

SECRETARIAL

SECRETARIAL 1. Business Arithmetic: This course will include a study of the more important phases of arithmetic as related to business. It will include a review of the principles and applications of percentage, with emphasis on interest, discount, bank discount and commission. The study of accounts from the arithmetical point of view, of partnership settlements, bills, monthly statements and pay roll work is taken up. Rapid calculation is emphasized throughout the course. (This course is required in the Secretarial Course and may be required in the Course of Commerce where lack of preparation is shown.)

SECRETARIAL 2. Penmanship: The principles and practice of muscular movement writing. (This course is required in the Secretarial Course and may be required in the Course in Commerce where lack of preparation is shown.)

SECRETARIAL 3. Spelling: The study of 2,500 business and technical words, their spelling, meaning and use. (This course is required in the Secretarial Course and may be required in the Course in Commerce where lack of preparation is shown.)

SECRETARIAL 21. Office Practice: A study of office methods, handling of mail, use of telephone, filing, duplicating, and general routine work. Recitations and practice. (No credit if taken in connection with Typewriting 23.)

Credit as separate course in the Summer Sessions, 2 hours.

DEPARTMENT OF MILITARY SCIENCE AND TACTICS

Colonel W. A. Castle, U. S. A.

RESERVE OFFICERS TRAINING CORPS

The plan for the Reserve Officers Training Corps was adopted by the United States Government in May, 1916. It had become the conviction of the leaders of the nation that the country should adopt some plan for national preparedness. It was hoped through the Reserve Officers Training Corps in time to train 50,000 men who could form an Officers Reserve from which leaders could be chosen in any national emergency. Owing, however, to the outbreak of war the plan was never fairly tried out.

With the demobilization of the Students' Army Training Corps in the fall of 1918 the Government decided to reestablish the R. O. T. C. wherever possible. The plan is simply this: the Government adds to the faculty of a college a professor of military science and tactics and establishes a new department on just the same basis as a department might be established in English or any other branch. It is hoped that by offering a systematic plan of training in the four years of a college course, a young man may receive, in addition to his academic training, training along military lines which will fit him to serve as an officer in times of national need. The plan as proposed does not take much of the student's time. From three to five hours each week are devoted to the practical and theoretical sides of the subject. During the summers training camps will be held at various points in the country to which students may go to secure additional and intensive training in military branches. At these training camps all of the student's expenses will be met. After graduation, the student may be selected for a commission. He may then be assigned for a period not to exceed

six months with regular troops. During this time he receives one hundred dollars a month.

In other words, the Government plans to create a great reserve of officer material and asks that the student in turn give a very small portion of his time throughout his college course to military science and tactics.

ADVANTAGES TO THE STUDENT

1. The student will receive training which develops leadership, organization, self reliance, courtesy, and initiative. These are qualities that are valuable in any life work.

2. The properly qualified student is assured of service as a commissioned officer in a period of emergency.

3. He will receive instruction which will bring him in close touch with national problems and give closer relationship with other colleges as part of a national enterprise and will develop a higher sense of college spirit and national loyalty.

4. The physical training which the student will receive will be a real asset to him in his college course and throughout his later life.

MATERIAL ADVANTAGES

The following statement of the material advantages received by members of the R. O. T. C. was prepared by the War Department. It shows that from a financial standpoint alone the R. O. T. C. should be of incalculable benefit to many students. The actual cash value of the R. O. T. C. for a four years course amounts to practically one hundred and fifty-five dollars a year.

WHAT THE GOVERNMENT OFFERS TO MEMBERS OF R. O. T. C.

Senior Division

EACH MAN WILL RECEIVE:

(actual cost value)	
coat wool O. D.	\$ 9.79
breeches wool O. D.	6.32
shoes russet or marching .	4.65
shirt wool O. D.	3.50
overcoat wool O. D. short	13.56
leggings pair canvas	1.05
hat service	2.00
collar ornaments07
hat cord09
belt23
chevrons57
Per year	\$41.83

ADDITIONAL FOR THOSE ATTENDING SUMMER CAMPS:

2 breeches cotton O. D.	\$ 3.38	1 hat additional	2.00
1 shoes russet or marching	4.65	1 hat cord09
1 shirt wool O. D.	3.50		
1 leggins pair canvas	1.05		\$14.67

Each man will receive in four years, property valued at
4 x \$41.83\$167.32

Each man will receive in three summers property valued at
3 x \$14.67 44.01

Each man recommended will receive commutation of subsistence, two years, or 590 days, at 40c per day 236.00

Each man may receive commutation of subsistence in kind (not paid in cash) three summers, 135 days, at 40c per day..... 54.00

Transportation average 1,000 miles per summer, or 3,000 miles for three summers, at 4c 120.00

Average for each of the four years in university course\$155.33

Besides the items mentioned above, equipment issued for each student amounts to at least 50.00

The privilege of buying extra uniform at the above mentioned prices from the Quartermaster Dept., which will have an additional saving value to those who take advantage of it.

The privilege of special technical training in various fields without any tuition charges.

An opportunity to obtain a commission as second lieutenant of the Regular Army for a period not exceeding six months, with allowances for that grade, and with pay at the rate of \$100.00 per month.

MILITARY TRAINING OF GROVE CITY COLLEGE

Military Training at Grove City College is no new experiment. For more than twenty years military training was maintained at Grove City College under the auspices of the War Department. The old plan was not a broad nor comprehensive one and did not offer the advantages to the student that the present R. O. T. C. plan offers. A few years ago the military work was for various reasons discontinued. With the outbreak of war in Europe, however, the College again endeavored to secure the support of the War Department for military training. Early in the year of 1916 negotiations were entered into with the War Department at Washington. In May of that year the Army Reorganization Bill was passed which provided for the establishment of the Reserve Officers Training Corps

in the colleges. The College made application for one of these units and in the fall of 1916 an officer from the War Department visited the College, made an inspection of the grounds, buildings and equipment and reported favorably. The War Department asked, owing to an existing shortage of officers, that the establishment of the unit be postponed to March or April of the following year. By that time the nation was on the verge of war with Germany and it was impossible to secure the promised aid from the Government. In the spring of 1917 voluntary military training was established by the College, and in the fall compulsory military training for all students was introduced. The College at its own expense secured a competent officer for the unit. Through the generosity of one of the members of the Board of Trustees, military training rifles of the most approved pattern were purchased. Every man was in uniform and the results of military training for that year were excellent.

In the fall of 1918 a unit two hundred and thirty-five strong of the Students' Army Training Corps was maintained at the College, and with the signing of the armistice and the demobilization of the Students' Army Training Corps, the College asked that a unit of the Reserve Officers Training Corps be established at the College.

During the winter of 1919 plans were laid and material secured, and in the spring of 1919 the unit was organized. The Government furnished, according to its plans, complete uniforms and equipment for the men. The work was taken up in splendid spirit by the men of the College and the results obtained were most gratifying to all interested in the work. An inspector from the General Staff, Washington, D. C., visited the College in the spring and made an inspection covering several days. He reported that the College was the model college of its class, that the unit had a better spirit and was better trained than any unit he had visited, and that the college grounds, buildings, and equipment were better adapted for such a unit than those of any institution he had visited.

The work will be carried on in the year 1919-20. It is required of all Freshmen and Sophomores and is optional for the

Junior and Senior classes. The work will count towards a college degree and should be a splendid asset to any ambitious young man.

The College is extremely fortunate in securing the appointment of Colonel W. A. Castle, U. S. A., as the Professor of Military Science and Tactics for the coming year. Colonel Castle, a number of years ago, was connected with the Military Department in Grove City College. Since that time he has had an unusually interesting and valuable experience. Before the war broke out in Europe he was the military observer for the United States Army with the French armies. He was in France during the mobilization period and for two years served with the British armies as military observer. For the past two years he has been on the General Staff where he has served with distinction. Part of the time he was at the War College in Washington and later served with the General Staff in France. His appointment assures the College of unusually high standards in its military work.

DEPARTMENT OF ATHLETICS AND PHYSICAL TRAINING

Director: Howard M. Acher

Medical Adviser: Dr. B. A. Montgomery

Instructor for Women: Miss Evelyn Pezw Lockhart

All forms of athletics at the college are under the direct supervision of the athletic director and medical adviser. The coach, who is a regular member of the faculty, accompanies the teams on all trips away from the college.

By this arrangement the college aims not only to foster and encourage athletics by providing a coach of wide athletic experience, but also to safeguard the health and mind of the students by placing them under the instruction and care of a competent and responsible official of the college. Systematic physical training according to sound physical hygienic principles is offered to all, although a general participation in out-door and indoor athletics is encouraged. Students are permitted to remain on the athletic teams only so long as athletics do not interfere with the pursuit of their studies. The rules governing inter-collegiate contests apply to all athletic teams. The forms of athletics in which the college participates are foot-ball, basket-ball, base-ball, track and tennis. The control of athletics is in the hands of an Athletic Committee appointed from the Faculty by the President. The direct management is by a student manager working under a joint committee of seven; two members from the Faculty, two members from the Alumni and three members from the Student Body.

ATHLETICS FOR WOMEN

The opportunity for physical development is too often confined to men. Grove City College believes that it is equally important that physical training be provided for young women and for that reason requires that all young women take some

regular course in physical culture. The work is in charge of Miss Lockhart, who has spent three years in special preparation for this work. Various forms of exercise may be elected; such as tennis, basket-ball, swimming, field hockey, folk dancing, or gymnastics. The gymnasium, which is entirely modern and fully equipped, has added much to the physical training of the young ladies, not only in extent, but also in pleasantness. The building is given over completely to the ladies for four full afternoons each week. In the past, gymnasium exhibitions have been held in which the development of the students has clearly shown the advantages of physical instruction.

GROVE CITY CONSERVATORY OF MUSIC

HERMAN POEHLMANN, *Mus. D.*

*Director and Professor of Piano and Vocal, and Supervisor of
the Piano and Vocal Teachers' Seminar*

GUSTAV MEHNER

*Professor of Pipe Organ, Piano, Composition, Harmony,
Forms*

JENNIE HASKELL GLENN

*Instructor in Piano, History, Elements of Music,
Music Dictation*

ESTHER REYNOLDS

Violin and Viola

The Grove City Conservatory of Music is affiliated with Grove City College. It is under the directorship of Doctor Herman Poehlmann, formerly professor in the Royal Conservatory, Dresden, Saxony. The courses of study provided are recognized by all capable of judging as the most approved of music schools generally. The high standard maintained in both instrumental and vocal music has brought the department into high repute among educated musicians. It has long been our ambition to afford facilities for instruction in music equal to those found in the larger Eastern schools. We confidently affirm that so far as the matter of instruction is concerned students have as good advantages for a musical education in Grove City College as in the very best conservatories of music.

ADMISSION AND CLASSIFICATION

All the various subjects in the Music Conservatory, including Voice, Piano, Violin, Harmony, Counterpoint, Composition, etc., are taught from the first step up to the special

coaching of artists. Each applicant must pass an examination in order to be placed in the proper grade. Students may enter at any time, though it is desirable, especially for the *regular course students*, that they *should begin in the fall term*. All beginners are expected to take, besides their principal study, Elements of Music.

All students who are taking full course in Music will be required to have at least freshman collegiate standing.

BACHELOR OF MUSIC

The College has felt the need of a Music Course which would combine a certain amount of literary work with the music and would lead to a baccalaureate degree. The course outlined below offers an excellent musical education and also gives a thorough training in literary courses necessary for the well educated person.

The entrance requirements for this course are completion of a regular four year high school course or its equivalent.

Prospective music teachers may use their elective privilege by taking courses in the Department of Education and thus qualify for the College Provisional Certificate upon graduation.

Plan of the Course for the Degree of Bachelor of Music Piano as the Major Study

FRESHMAN YEAR			
FIRST TERM		SECOND TERM	
	Hrs.		Hrs.
English 11	2	English 12	2
Oratory 11 (2 recitations)	1	Oratory 12 (2 recitations)	1
History 21	3	History 22	3
Piano (2 lessons)	4	Piano (2 lessons)	4
Elements of Music	2	Harmony	2
History of Music	1	History of Music	1
Recitals		Recitals	
Dictate 2 periods		Dictate 2 periods	
Chorus 1 period		Chorus 1 period	
Schubert 1 period		Schubert 1 period	
Choir 1 period		Choir 1 period	
Physical Training	1	Physical Training	1
THIRD TERM			
	Hrs.		
English 13	2		
Oratory 13 (2 recitations)	1		
History 23	3		
Piano (2 lessons)	4		
Harmony	2		
History of Music	1		
Recitals			
Dictate 2 periods			
Chorus 1 period			
Schubert 1 period			
Choir 1 period			
Physical Training	1		

SOPHOMORE YEAR

FIRST TERM		SECOND TERM	
	Hrs.		Hrs.
English 31	3	English 32	3
Modern Language	3	Modern Language	3
Piano (2 lessons)	4	Piano (2 lessons)	4
Harmony	2	Harmony	2
History of Music	1	History of Music	1
Forms	2	Forms	2
Duets	1	Duets	1
Recitals		Recitals	
Dictate 2 periods		Dictate 2 periods	
Chorus 1 period		Chorus 1 period	
Schubert 1 period		Schubert 1 period	
Choir 1 period		Choir 1 period	
Physical Training	1	Physical Training	1

THIRD TERM

	Hrs.
English 33	3
Modern Language	3
Piano (2 lessons)	4
Harmony	2
History of Music	1
Forms	2
Duets	1
Recitals	
Dictate 2 periods	
Chorus 1 period	
Schubert 1 period	
Choir 1 period	
Physical Training	1

JUNIOR YEAR

FIRST TERM		SECOND TERM	
	Hrs.		Hrs.
Modern Language	3	Modern Language	3
Psychology 31	3	Psychology 32	3
Piano (2 lessons)	4	Piano (2 lessons)	4
Harmony	2	History of Music	1
History of Music	1	Counterpoint	2
Counterpoint	2	Duets	1
Duets	1	Recitals	
Recitals		(Same as Freshman Year.)	
(Same as Freshman Year.)		Elective Music	2
Elective Music	2	Physical Training	1
Physical Training	1		

THIRD TERM

	Hrs.
Modern Language	3
Bible	3
Piano (2 lessons)	4
History of Music	1
Counterpoint	2
Duets	1
Recitals	
(Same as Freshman Year.)	
Elective Music	2
Physical Training	1

SENIOR YEAR

FIRST TERM		SECOND TERM	
	Hrs.		Hrs.
Bible	3	Bible	3
Literary Elective	6	Literary Elective	6
Piano (2 lessons)	4	Piano (2 lessons)	4
History of Music	1	History of Music	1
Composition	2	Composition	2
Duets	1	Duets	1
Recitals		Recitals	
(Same as Freshman Year.)		(Same as Freshman Year.)	
Elective Music	2	Elective Music	2
Physical Training	1	Physical Training	1

THIRD TERM

	Hrs.
Bible	3
Literary Elective	6
Piano (2 lessons)	4
History of Music	1
Composition	2
Duets	1
Recitals (Same as Freshman Year.)	
Elective Music	2
Physical Training	1

The following changes in the plan above are made when some Major beside Piano is chosen:

Organ Major: Freshman Year is the same as for Piano Major.
 Violin Major: Freshman Year has Violin (2 lessons) in place of History.
 Vocal Major: Freshman Year has Vocal (2 lessons) in place of History.
 Organ Major, Violin Major or Vocal Major: In the Sophomore, Junior and Senior Years, the Organ, Violin or Vocal Major (2 lessons) is substituted for one lesson in Piano.

MUSIC ELECTIVES

For prospective teachers of Piano, the Music Elective of the Junior year is Teachers Instruction; of the Senior year is Teachers' Instruction and Teaching.

For prospective teachers in the Public Schools, the Music Elective of the Junior and Senior years is Chorus and Conducting.

For the prospective "Music Artist," the Music Elective of the Junior and Senior years is further work in the major subject.

TUITION

The tuition for the Bachelor of Music Course is sixty-five dollars (\$65) per term when Piano is the major subject and seventy-five dollars (\$75) per term when the major subject is Organ, Violin or Voice.

Practice periods are additional to the tuition and are at the rate of one dollar (\$1) a period per term.

THREE YEAR COURSE IN MUSIC

In addition to the course leading to the degree of Bachelor of Music, a Three Year Course in Music is offered. Students in this course must attend three years in succession in order to receive the diploma.

Diplomas or certificates are given after the successful completion of any one of the courses prescribed in the various de-

partments. They are conferred on those only who complete a full course and have attended the department at least three years. Those who have attained the Teacher's Diploma in Piano, Voice, Theory or Pedagogy, are then prepared to do advanced work and may secure diplomas in courses of study which will prepare them for independent development as pianists, violinists or vocal soloists.

Diplomas or certificates will be given :

A. For ability as teacher of piano, to students of the Piano-Seminar who have shown remarkable aptness in teaching, who have had for one year, at least a class in theoretical piano instruction, one year supervised piano instruction (giving of instruction to children, under care of the Director), have reached studies by Cramer, and have had at least two years' work in History and two years' work in Harmony and Forms of Music. According to the higher or lower ability in piano playing, different degrees are given, such as, for teaching beginning grade, for teaching lower and advanced middle grades, and for teaching lower and advanced higher grades.

In order to receive a certificate for ability as teacher of piano (a) beginning grade, the student must have finished two books from Cramer (Germer); Jensen, op. 32, book 1; Heller, Vol. II; Czerny, portions of Vols. II and III; Bach, Preludes; Mendelssohn's Songs without Words, partly; easier pieces from Schubert, Weber, Schumann, and at least one or two sonatas by Haydn, Mozart, Beethoven.

b. Low middle grade: Three books from Cramer; Jensen, op. 32, books 1 and 2; Heller, Vols. II and III; Czerny, Vols. II and III; Bach, some French suites or two-voice inventions; pieces like the above and some modern composers.

c. Advanced middle grade: Four books from Cramer; Jensen, op. 32, books 1, 2 and 3; Heller, Vol. IV; Czerny, Vols. II and III; Bach. Harder pieces from Mendelssohn, Schubert, Weber, Schumann, and other modern composers.

d. Low advanced grade: Cramer; Clementi: Gradus ad Parnassum; Jensen, op. 32; Heller, Vol. IV and Czerny, Vols. II and III; Bach. More difficult pieces from preludes; pieces from classical, romantic and modern masters.

B. Fitness for independent development as a pianist, to such piano players as have reached the Seventh Grade in the Piano Course, have studied Counterpoint one year, and have shown such a thorough grasp of the subject that their future development may, without risk, be left to themselves.

C. For distinguished ability as a pianist, to such piano players as have reached the Eighth Grade of the Piano Course, have completed the work in Counterpoint, and have arrived at a high degree of proficiency in execution.

D. For ability as a teacher of vocal music, to students of the Voice-Seminar who have shown especial aptness in training the voice, have reached the Sixth Grade in Voice Culture, and have had two years' work in Music Theory and one year in Piano.

E. Fitness for independent development as concert singer, to students of voice culture, who have reached the Seventh Grade of the Voice Culture, the Fourth Grade in the Piano Course, have had two years' work in Music Theory, and have arrived at such a degree of proficiency in the use of the voice and such understanding of vocal principles and methods that their future development may, without risk, be left to themselves.

F. For ability as church soloist, to students of voice culture who have finished the sixth grade of the vocal course, third grade in Piano and have had two years' work in Music Theory.

This diploma is granted to members of the literary department who have taken music as additional work.

G. For distinguished ability as concert and oratorio singer, to students of voice culture who have finished the Seventh Grade of the Voice Course and have reached the Fourth Grade of the Piano Course, have had two years' work in Music Theory, and have acquitted themselves with high credit before the public.

H. For ability as opera singer, to students of voice culture whose voices have been developed in the technique necessary for opera singing and have attained such a degree of proficiency that the artistic rendering of the most difficult dramatic pass-

ages is satisfactorily accomplished, and who have particularly attained accuracy in ensemble and have given evidence of unusual dramatic power.

I. For ability as teacher of violin, to students of the Violin Seminar who have reached the Fourth Grade in the Violin Course, the Third Grade in the Piano Course, and have two years' work in Music Theory.

K. Fitness for independent development as violinist, to such as have finished the Fourth Grade in the Violin Course, have reached the Fourth Grade in the Piano Course, and have had two years' work in Music Theory.

L. For ability as solo or concert violinist.

M. For ability as teacher of Music Theory, to students of Music Theory who have attained extensive knowledge of Harmony, and have shown special aptness in all their studies in the theory of music and have reached the Sixth Grade in the Piano Course.

Certificates of Dismissal are given after one year's attendance to such as take a single study in any one course.

Diplomas of distinction will be awarded as an acknowledgement of superior talent, eminent application and marked faithfulness to only such as have completed a full course.

As most of the students will teach later, special care is taken to train pupils for the profession of teaching Piano, Voice and Harmony. The course provided along these lines is the most complete that can be given.

JUNIOR WORK

A student is entitled to enter the Junior Class in Piano if he has reached the Fifth Grade,—having studied thoroughly at least the following Etudes: Doering, op. 44, books 1 and 2, op. 8, books 1 and 2; Czerny, Vol. I, (Germer), Vol. II, 1 part; Heller, Vols. I and II; Germer, op. 35; Bach, Preludes; Bertini, op. 29 and 32; Bach, two-voice inventions.

A student is entitled to enter the Junior Class in Vocal if he has reached the Third Grade in Piano, the Sixth Grade in Vocal, and is ready to begin Harmony instruction.

RECITATIONS

At least two recitations are required weekly in all the leading studies of any course. In Harmony the students recite daily in all beginning classes; in the advanced classes they receive three lessons and two lessons weekly, according to their advancement. Classes in Teachers' Instruction and in Forms recite twice a week. In Music Dictation, beginning classes recite daily, advanced classes three and two times a week. Chorus, Ensemble and Music History recite once or twice a week.

Special attention is called to the fact that almost twice as much instruction is given for the tuition paid as at any other college or music school. It has been found especially beneficial for beginners to recite at least three times a week in such leading subjects as Piano, Voice, Harmony, etc. We confidently believe that this departure is very much to the advantage of the students of the Music Department.

THE ORCHESTRA

A fine orchestra is maintained by the Music Department under the direction of Dr. Poehlmann. New students wishing to join this orchestra for the instruction they will receive in various instruments are admitted on a term fee of \$5. After one year's membership no fee is charged.

MODEL STUDENTS

A limited number of boys and girls will be received into the Music Department as model students for teachers in Piano, Violin, and Voice who are receiving supervised instruction in teaching. Those who receive this instruction will be charged \$3 a term for two lessons each week. Application should be made to the Director, before the opening of the session, by all those desiring places.

REGULATIONS CONCERNING STUDENTS

Music students are not allowed to take private lessons from any music teacher who is not connected with the College, nor to take part in performances of any kind without permission of the Director.

Each student is required to pay for sheet music used in the course; chorus and duet books are furnished by the conservatory.

Each beginning student is required to take at least one year's lessons from Professor Mehner or Miss Glenn. If sufficient progress has been made, the student is recommended to Dr. Poehlmann for enrollment in his classes.

At the end of each term, grades are given in all courses of that term; students are graded on progress, application, and talent. The grade values are: A, very good; B, good; C, fair; D, poor; E, very poor.

Students, who for two successive terms are graded "D" in talent in a major subject are not eligible to continue the course leading to graduation.

Holidays, determined by the Faculty of the College, are observed by the Conservatory of Music. Lessons set for such days are not made up at other times.

Students who come from nearby towns for lessons in the various departments are required to pay full tuition and are given one hour lesson each week instead of two half hour lessons as regularly given to the students of the Conservatory of Music.

Each student is required to take a course of at least three years.

Some students may be, under certain conditions, excused from a subject.

Those who enter in the winter term must complete the year's work during the summer term.

No new class in Teacher's Instruction will be formed in the spring.

The course during the summer term is primarily for special work only and for those regular course students who have work to make up.

Students who are here for only the summer term may have instruction in all branches.

The general regulations as to the care, comfort and conduct of students in the Literary Department are binding upon the

students of the Conservatory of Music. These regulations include the residence of all students not from Grove City in the dormitories at the College, their attendance upon all the religious exercises, including the daily and Sunday chapel services, and their co-operation in all interests which make for the maintenance of a good moral and Christian atmosphere.

THE COLLEGE

The work of the College Department does not prove a hindrance to the interests of the Conservatory of Music, but rather a help. The enthusiasm and earnest purpose of the large number of men and women in the College serve as a stimulus. Indeed, the two departments are mutually stimulating, and many parents prefer to have their daughters take their work in Music under influences of this kind. The same interest and care which are exercised over the students of the College are manifested in the management of the Conservatory of Music.

Students of the Conservatory of Music are permitted to take studies in the Literary Department, by the payment of two dollars (\$2) extra a term for each credit hour in college subjects. No reduction is made when students of the Conservatory of Music take up Art, Commercial Branches or Stenography and Typewriting.

COURSES OF STUDY

PIANO—Piano.

Elements of Music.
Harmony.
Musical Forms and
Analysis.
Counterpoint.
Music History.
Ensemble.
Chorus.
Music Dictation.
Psychology.

VIOLIN—Violin.

Piano.
Elements of Music.
Harmony.
Counterpoint.
History.
Musical Forms (Lectures).
Ensemble.
Chorus.
Psychology.
Music Dictation.

VOICE—Voice.

Piano.
Elements of Music.
Harmony.
Musical Forms (Lectures).
Music History.
Ensemble.
Declamation.
French, German and Italian.
Music Dictation and Chorus.
Psychology.

MUSIC THEORY—Elements of Music.

Harmony.
Counterpoint.
Musical Forms.
Composition.
Piano.
Music History.
Chorus.
Music Dictation.

PIANO-SEMINAR—Piano.

Theory of Piano Instruction,
(Lectures), two years.
Supervised Piano Instruction,
one year.
Elements of Music.
Harmony.
Counterpoint.
Composition.
Musical Forms (Lectures).
Ensemble.
Chorus.
Music Dictation.
Psychology.

VOICE-SEMINAR—Voice.

Theory of Voice Culture.
Supervised Voice Culture In-
struction, one year.
Elements of Music.
Harmony.
Piano.
Counterpoint.
Musical Forms (Lectures).
Ensemble.
Chorus.
Declamation.
Music Dictation.
Psychology.

VOICE (OPERA)—Voice.

Interpretation of Opera.
Dramatic Rendition.
Elements of Music.
Harmony.
French and German.
Musical Forms (Lectures).
Music History.
Ensemble.
Chorus.
Music Dictation.
Psychology.

VIOLIN-SEMINAR—Violin.

Supervised Violin Instruction.
Piano.
Elements of Music.
Harmony.
Counterpoint.
Musical Forms (Lectures).
Music History.
Ensemble.
Chorus.
Music Dictation.
Psychology.

PLANS OF THE COURSES

PIANO COURSE

Piano playing has always been regarded as a function of the fingers, and training of the finger muscles for independence and quality has been the foundation for all technical practice. But within recent years a new principle has been sought by various theorists. Almost simultaneously all found themselves involved in the same problem—relaxation, its value and application. Among others, two great works, the books of Breithaupt and of Steinhausen, were published. Both discerned in the great pianists the free and natural movement of the arm as the source of technic and referred this idea to its physiological sources. Breithaupt, the discoverer of most of the actions, has systematized them in their three aspects—physical, psychological and aesthetic. The problems of relaxation and weight are solved in his works and become the basis of a far-reaching system.

Breithaupt says: "The art of piano-playing is not striking, hammering and thrusting, but an art of sensitive, nervous finger-tips, velvet hands, and soft, round, complete movements of

an elastic playing organism and finally the expression of that ever immeasurable and indeterminate tone-ideal, that lives half perceived, half unperceived in the mind."

This wonderful method of weigh-technic which all players of sonorous tone, such as Busoni, Paderewsky, Risterchi have used more or less unconsciously, is used in the work of the Conservatory.

FIRST YEAR

First Term (Fall).....	Piano. Elements of Music. Dictate, Chorus, History.
Second Term (Winter).....	Piano. Harmony. Dictate, Chorus, History
Third Term (Spring).....	The same.

JUNIOR YEAR

First Term	Piano. Psychology. Harmony. Forms. Teachers' Instruction. Dictate, Chorus, History, Duets.
Second Term	The same.
Third Term	The same.

SENIOR YEAR

First Term	Piano. Harmony. Forms. Teaching, Teachers' Instruction. Dictate, Chorus, History, Duets.
Second Term	Piano. Counterpoint, Forms. Teaching, Teachers' Instruction. Chorus, History.
Third Term	The same.

VOCAL COURSE

FIRST YEAR

First Term (Fall).....	Piano. Elements of Music. Dictate, Chorus, History, Elocution.
Second Term (Winter).....	Harmony, Piano. Dictate, Chorus, History, Elocution. German or Italian.
Third Term (Spring).....	The same.

JUNIOR YEAR

First Term	Piano. Psychology. Harmony, Teachers' Instruction. Dictate, Chorus, History. Elocution, German, (French or Italian).
Second Term	The same. Duets.
Third Term	The same.

SENIOR YEAR

First Term	Harmony, Teaching, Forms. Dictate, Chorus, History, German or French. Duets.
Second Term	Counterpoint, Teaching, Forms. Chorus, History, Duets.
Third Term	The same.

VIOLIN COURSE

FIRST YEAR

First Term (Fall).....	Elements of Music, Piano. Dictate, Chorus, History.
Second Term (Winter).....	Harmony, Piano. Dictate, Chorus, History.
Third Term (Spring).....	The same.

SECOND YEAR

First Term	Harmony, Dictate, Chorus, History, Orchestra.
Second Term	The same.
Third Term	The same.

THIRD YEAR

First Term	Harmony, Teaching, Forms, Dic- tate, Chorus, History, Orchestra.
Second Term	The same.
Third Term	The same.

PIANO DEPARTMENT

Pieces and Studies

BEGINNING GRADE

STUDIES

PIECES

GRADE 1—

Technical Exercises (Vetter).
Tappert.
Doering, op. 44, book 1.
Koehler, op. 151.
Doering, op. 76, book 1.
Doering, op. 45, book 1.

GRADE 1—

Little Folks' Songs, Germer, op. 32.
Reinecke, op. 54, Krause; op. 25.
Lichner, "Little Leaves and Flow-
ers."
Gurlitt, "Album Leaves for the
Young."
Schumann, op. 68, No. 1-6.
Reinecke, op. 107, book 1.

GRADE 2—

Doering, op. 44, book 2.
Doering, op. 45, book 2.
Doering, op. 76, books 2 and 3.
Germer, op. 36, books 1 and 2.
Loeschorn, op. 65, books 1 and 2.
Gurlitt, op. 82.

GRADE 2—

Sonatinenalbum, by Germer.
Matthews' Introduction.
Reinecke, op. 107, book 2; op. 47,
No. 1.
Rieman, op. 48.
Kullak, op. 61 and 82.
Wilm, op. 81, book 1.

GRADE 3—

Doering, op. 8, book 1; op. 23.
book 1.
Doering, op. 166, books 1 and 3.
Czerny, op. 299. (Germer), books
1 and 2, or Behrens, op. 68.

GRADE 3—

Mozart and Haydn Sonatas, easy
selections.
Beethoven var., easy selections.
Mozart, Rondo, D.
Mozart, var., E.

Germer, op. 37, books 1 and 3.
 Heller (Germer).
 Germer, op. 35, books 1 and 2,
 (Polyphony).
 Bach, preludes.

GRADE 4—
 Huenten, op. 30, op. 80.
 Doering, op. 8, book 2.
 Czerny, op. 299, book 3.
 Bertini, op. 29 and 32.
 Heller or Schytte, op. 106.
 Bach Inventions (two voices).
 Czerny, op. 834, op. 92 (toccata).

Hummel, op. 122, op. 55.
 Schumann, op. 68.
 Beethoven, op. 49, op. 51.

GRADE 4—
 Mendelssohn Songs (Germer).
 Mendelssohn, op. 72.
 Clementi Sonatas, op. 26, 39 and 24.
 Moscheles, op. 18.
 Field, nocturnes.
 Gade, op. 19, books 1 and 2.
 Heller, op. 138.
 Schubert, Landler, allegretto C
 Minor, two Scherzi.

MIDDLE GRADE

GRADE 5—
 Cramer, book 1 (Germer).
 Behrens, op. 61, books 3 and 4.
 Czerny, op. 299, book 4.
 Czerny, op. 740.
 Loeschorn, op. 67, book 1.
 Heller, op. 16.
 Jensen, op. 32, books 1 and 2.
 Haberber, op. 53.
 Bach, Suiten French.
 Doering, op. 33, book 2, op. 30.
 Doering, op. 24, 25, octaves.
 Doering, op. 46, double notes.

GRADE 5—
 Beethoven, Bagat, op. 119.
 Beethoven, op. 33.
 Beethoven, op. 126.
 Mozart, Haydn, Clementi, Sonatas.
 Mendelssohn Songs.
 Raff, op. 75; Jensen, op. 17.
 Schumann, op. 124, op. 99, op. 68.
 Schubert, op. 94, op. 90.
 Grieg, op. 14, op. 30, op. 6, op. 12.
 Kirchner, op. 7, op. 9, op. 2.
 Rubenstein, Nevin, Ravina.
 Henselt, Weber, Moscheles.

GRADE 6—
 Cramer, books 2 and 3.
 Czerny, 740.
 Czerny, op. 337, 40 daily studies.
 Clementi, Gradus ad Parnassum,
 Germer.
 Jensen, op. 32, book 3.
 Doering, op. 33, book 3.
 Bach, Inventions (3 voices).
 Bach, Suiten English.
 Bach, well-tempered clavichord.
 Czerny, op. 335.
 Kullak, octave studies.

GRADE 6—
 Beethoven Sonatas.
 Mozart, Haydn, Weber, Clementi.
 Schubert Sonatas.
 Schumann, op. 15, 82, 28.
 Chopin, op. 28, preludes.
 Chopin, nocturnes.
 Chopin, mazurkas.
 Chopin, waltzes.
 Jensen, op. 43, 44, op. 2.
 Heller, op. 92, 83.
 Gade, op. 34, 36, 41.
 Mendelssohn, op. 5, 7, 15, 16, 18, 33.

HIGHER GRADE

GRADE 7—
 Tausig, daily studies.
 Clementi, Gradus.
 Bach, Concerta in Italian style.
 Bach, well-tempered clavichord.
 Chopin, preludes, op. 28.
 Heller, op. 81.
 Moscheles, op. 80 and op. 43.
 Mueller, Capricen, op. 31, 34,
 47, 29.

GRADE 7—
 Weber, selected compositions.
 Brahms, op. 10 and op. 27.
 Beethoven, variations.
 Raff, op. 91.
 Rubenstein, op. 51.
 Scharwenka, op. 8.
 Saint-Saens, op. 23.
 Concertos, by Hummel, Dussek,
 Field, Mozart, Weber and
 Beethoven.

GRADE 8—

Czerny, op. 365. Virtuoso School.
 Henselt, op. 2, 5 and 13.
 Clementi, Gradus.
 Bach, fugues.
 Moscheles, op. 95 and 51.
 Schumann, op. 3, 10 and 13.
 Chopin, op. 10, 25 and 28.
 Rubenstein, op. 23 and 81.
 Saint-Saens, op. 52.
 Liszt, Etudes, Transcendentals.

GRADE 8—

Beethoven, Later Sonatas.
 Brahms, op. 1, 2 and 5.
 Chopin, op. 37, 22, 53, etc.
 Schumann, op. 6, 9, 17 and 10.
 Mendelssohn, op. 54.
 Moskowski, op. 14.
 Scharwenka, op. 6.
 Schubert, op. 53, 78, 143.
 Concertos, by Beethoven, Schubert,
 Handel, Schumann, Bach, Chopin,
 Brahms, Liszt, etc.

VIOLIN DEPARTMENT

GRADE 1

Wohlfahrt, op. 38.
 Laoureux, Practical Method,
 Book 1.
 Federlein, Foundation Studies.
 Hermann, op. 20, book 1.
 Blumenstengel, Scale and Arpeg-
 gio Studies, book 1.
 Sevcik, op. 1, book 1.
 Sevcik, op. 7, book 1.
 Hohman Method, books 1 and 2.
 Kayser, op. 20, book 1.
 Sitt, op. 32, book 1.
 Wohlfahrt, op. 45, book 1.
 Alard, op. 10, book 1.

Dancla, op. 123, 187.
 Pleyel, op. 8.
 Gebauer, op. 10.
 Weiss, op. 38.
 Hauptmann, op. 10.
 Huber, op. 8.
 Alard, op. 39.
 Wolferrmann, op. 3.
 Saenger, op. 127, 128.

GRADE 2

Blumenstengel Scale and Arpeg-
 gio Studies, book 2.
 Sevcik, op. 7, book 2.
 Laoureux Method, book 2.
 Wohlfahrt, op. 45, book 2.
 Sitt, op. 32, books 2 and 3.
 Alard, op. 10, book 2.
 Hermann, op. 20, book 2.
 Sevcik, op. 6, books 6 and 7.
 Sitt, op. 32, book 5.
 Dont, op. 38.

Mazas, op. 38.
 Dancla, op. 187, 129.
 Beriot, Air Varie No. 14.
 Bohm, op. 378, 380.
 Hofmann, Sonatinas.
 Hollaender, op. 3, 20, 62.
 Kriens, Suite.
 Bach, Sarabande and Loure.
 Schmidt, op. 41.

GRADE 3

Laoureux Method, book 2.
 Schradieck Scale Studies.
 Schradieck Technical School,
 book 1.
 Sitt, op. 32, books 2 and 3.
 Kayser, op. 20, book 3.
 Dont, op. 37.
 Laoureux Method, book 3.
 Mazas, op. 36, book 1.

Pleyel, op. 24.
 Dancla, op. 109.
 Dvorak, op. 100.
 Beriot, op. 5.
 Heitsch, op. 4, Romance.
 Ries, Gondoliera from Suite 3.
 Old Dance Forms—Bach, Handel,
 Beethoven, Mozart.

GRADE 4

Schradiack Scale Studies.	Beriot, op. 57.
Schradiack Technical Exercises.	Schubert, 137.
Sevcik, op. 8 and 9.	Raff, op. 85.
Mazas, op. 36, book 2.	Svendsen, op. 26.
Kreutzer, 42 Etudes.	Grieg, op. 46.
Casorti, op. 50.	Brahms, Hungarian Dances.

GRADE 5

Sevcik, op. 1, book 4.	Bach, 6 Sonatas.
Fiorillo, 36 Studies.	Beethoven, op. 40 and 50.
Mazas, op. 36, book 3.	Handel, Sonatas.
Rode, 24 Caprices.	David, Concert Studies.
Rovelli, 12 Caprices.	Wieniawski, op. 17.
Gavines, 24 Studies.	Vieuxtemps, op. 38.
Wieniawski, op. 18, Etudes- Caprices.	Concertos—Beriot, Rode, Viotti, Kreutzer, Mozart, Mendels- sohn, Bruch.
Paganini, 24 Caprices.	
Hullweck, Orchestra Studies.	

ORGAN DEPARTMENT

The demand from many quarters for pipe organ instruction, and especially by those who are qualifying to become church organists has led to the installing of a very fine pipe organ in the Music Department. The organ is of the latest design, pneumatic action throughout, and is especially adapted to the work of instruction.

Herr Gustav Mehner is splendidly equipped to train pipe organists. He was four years under some of the most noted organists of Europe and is a musician and artist of the highest standing.

The regular fee for instruction is \$33 for a term of three months.

A fee of \$5 per term is charged for practice periods of one hour per day. A special auditorium is set aside for this work, so that considering the expense of heating and lighting and the necessary expense of an electric motor for working the bellows, the fee for this branch is very reasonable.

The student should not commence the study of this instrument until a good practical knowledge of the piano has been obtained. As the organ is principally used in connection with the church service, special attention will be given to the art of service accompaniment. Instruction in the mechanism of the pipe organ will be given to all organ students.

- GRADE 1—Merkel Organ School, Part 1. Manual playing in two, three, four parts.
- GRADE 2—Merkel Organ School, Part 2. The natural pedalling; regular alternating of both feet.
Artificial Pedalling; the use of point and heel of the same foot.
Easy pieces by Batiste, Dolmetch, Flagler, Lemaigre, Merkel and others.
Sight Reading; easy hymn tunes with the pedals.
- GRADE 3—Nilson Pedal Studies.
Merkel, Parts 3 and 4. Various pieces for study and church use.
Selected Pieces by Rheinberger, Dubois and others.
Sight Reading; Hymn tunes in more difficult style.
- GRADE 4—Nilson Pedal Studies, continued.
Schneider—Forty-four studies. (Manuals and Pedals continued.)
Bach—Eight short Preludes and Fugues.
Some of his Chorals.
Rheinberger—Meditations.
Other pieces by Guilmant, Mailing, La Toutbelle and others.
- GRADE 5—Pedal Studies by Nilson and Schneider to be completed.
Bach—Preludes and Fugues of medium difficulty.
Mendelssohn—Preludes and Sonatas. (Nos. 2 and 5.)
Rheinberger—Sonata. (A Minor.)
Selected pieces by Guilmant, Widor, C. Frank and others.
- GRADE 6—Selected studies suitable for the grade.
Mendelssohn—Sonatas. (1, 3, 4, 6.)
Bach—Toccatas, Preludes and Fugues.
Merkel—Sonatas.
Schumann—Fugues.
Rheinberger—Sonatas, (C Major and others), and Concertos.
Widor—Symphonies.
Guilmant—Sonatas.
Liszt—Prelude and Fugue on the name: Bach.
Reger—Prelude and Fugues. Trios. Sonata, (F sharp Minor).
Other pieces selected for concert use.

Diplomas will be given as follows: (a) For ability as church organist to such organ students as have reached the Fifth Grade in the Organ course, have completed the work in Harmony, have shown sufficient knowledge in transposition and improvisation, are acquainted with the mechanism of the organ. (b) For ability as solo organist to such organ students as have completed the Sixth Grade in the Organ Course, have shown sufficient knowledge in Theory of Music and are acquainted with the mechanism of the organ.

VOCAL DEPARTMENT

Our vocal instruction is based on the so-called pure Italian method. Therefore the fundamental principles of vocal art, such as breathing, position of larnyx, tongue and mouth—in short, all functions of the tone-producing and tone-strengthening organs—will receive the most careful and patient attention. The result will be a normal, well placed, easy flowing, resonant and beautiful tone. This is the most important and most difficult part of voice culture. While the Italian method, which treats the voice as a beautiful instrument only, forms the necessary basis of the vocalism, it is absolutely inadequate for the proper rendition of modern music. This demands a perfect treatment of all vowels, consonants, words, phrases and sentences, or all modulations, of emotions and sentiments as indicated by the underlying poem, of which the music is but a higher expression. Therefore, the vocal art requires the most patient and faithful study, and pupils must ever bear in mind that, while “Art is long and time is fleeting,” vocal art is the longest, the deepest, the most difficult, as it is the most beautiful of the arts.

VOCAL COURSE OF STUDY

- GRADE 1—J. Smith's Method: Posture, Breathing, Exercises 14 to 17; Tone-Production, Part I, Exercises 29-35.
- GRADE 2—J. Smith: Tone-Production, Part II; Exercises 36-39.
- GRADE 3—J. Smith: Tone-Production, Part III; Exercises 40-60.
Tone-Production, Part IV; Secondary Vowels.
Tone-Production, Part I; Diphthongs or Compound vowels.
- GRADE 4—J. Smith: Articulation, Exercises 67-72.
Pronunciation, Exercises 73-77. Intervals. The Easiest Solfeggi.
- GRADE 5—J. Smith: Exercise 78 for the extension of the compass; scales; Sostenuto Exercises. Easy Solfeggi; Easy English Songs.
- GRADE 6—J. Smith: Arpeggio; Embellishments; Coloratur Exercises; Medium Solfeggi and Songs by Mendelssohn, Schubert, Schumann.
- GRADE 7—Continuation of preceding exercises; advanced Solfeggi; songs in Italian, German and French Languages.
- GRADE 8—Oratorio Study.
- GRADE 9—Opera Study.

Grand Concert

FOR THE WELCOME FUND OF COMPANY M

Given by the Home Orchestra, Under the Direction of
Dr. Poehlmann, Assisted by Miss I. Poehlmann
and Prof. G. Mehner

CARNEGIE HALL, FRIDAY EVENING, MAY 9, 1919

PROGRAM

Overture: Masaniello (La Muette de Portico).....*E. Auber*

Aria: "O donfatele" from the Opera, Don Carlo.....*G. Verdi*

MISS I. POEHLMANN

Symphony in C Major*J. Haydn*

I Mov. Adagio—Vivace

II Mov. Adagio (Theme with Variations)

III Mov. Menuetto (old dance)

IV Mov. Finale

Piano Soli: Hark, hark the Lark.....*Schubert-Liszt*

Scenes from the Carnival.....*G. Mehner*

G. MEHNER

Alto Soli: (a) The Lake.....*W. Berger*

(b) The Weathercock*L. Lehmann*

(c) When the Boys Come Home.....*O. Speaks*

MISS I. POEHLMANN

Serenade and March.....*H. Poehlmann*

Selections from Lucia di Lammermore.....*G. Donizetti*

March: Over the Top

Open Recital

Given by the

INTERMEDIATE AND MODEL DEPARTMENTS
of the Music Department of Grove City College

TEACHERS

VIOLIN: Miss E. Reynolds

PIANO: Misses H. McKinney, P. Hodge, K. Hutchins,
M. Ruffing, G. Turner, I. Walker

MUSIC HALL, MONDAY, MARCH 10, 1919
at eight o'clock

PROGRAM

Duet: Valse	G. Martaine
..... R. MONTGOMERY AND W. SHILLITO	
Violin Solo: Nocturno	O. Reiding
..... H. EAKIN	
May Song	T. Tapper
..... C. SIEPLEIN	
Duet: Barcarolle	J. Fearis
..... L. VANHORN AND J. MCCURDY	
Folk Song	T. Tapper
..... C. GRAHAM	
Melody in G Major	T. Tapper
..... D. VINCENT	
Violin Solo: Valse	E. Winn
..... E. BAKER	
Duet: Peter Pan	M. Bilbro
..... N. EMERY AND M. CLEELAND	
Melody in G	T. Tapper
..... R. WINSBURG	
Little Lottie's Dance	A. Sartorio
..... R. MONTGOMERY	
In the Twilight—Nocturno	B. Anthony
..... W. SHILLITO	
Violin Solo: Minuet	L. v Beethoven
..... D. ALLEN	
In the Month of May	F. Behr
..... D. WOLFORD	
Duet: In Venice—Barcarolle	G. Martaine
..... E. ALLISON AND G. SMITH	
Heart of Gold	G. Sapulding
..... J. MCCURDY	
Rollicking Sailor Lad	W. Rolfe
..... G. SMITH	
Violin Duet: Gavotte Characterisque	G. Gillet
..... A. DONALDSON AND V. JAMISON	
Lullaby	R. Goedeler
..... L. CASTLE	
Devotion	H. Engleman
..... J. EMERY	
Duet: Yuletide Bells	R. Goedler
..... J. EMERY AND G. HOGUE	

RATES OF TUITION PER TERM OF TWELVE WEEKS

Private Lessons

VOCAL

Instruction given by Dr. Poehlmann

One term's instruction (two half hour lessons a week)	\$33.00
One term's instruction (one half hour lesson a week)	18.00

Instruction given by an Assistant

One term's instruction (two half hour lessons a week)	28.00
One term's instruction (one half hour lesson a week)	16.00

PIANO

Instruction given by Dr. Poehlmann or Prof. Mehner

Two half hour lessons a week	\$33.00
One half hour lesson a week	18.00

Instruction given by an Assistant

Two half hour lessons a week	28.00
One half hour lesson a week	16.00

ORGAN

Instruction given by Prof. Mehner

Two half hour lessons a week	\$33.00
One half hour lesson a week	18.00

VIOLIN

Instruction given by Miss Reynolds

Two half hour lessons a week	\$28.00
One half hour lesson a week	16.00

OTHER EXPENSES

Harmony (in classes)	\$15.00
Counterpoint (in classes of two)	20.00
Composition (in classes of two)	25.00
Teachers' Instruction in Piano	10.00
Teachers' Instruction in Voice	10.00
Dictation and Ear Training	6.00
Forms and Analysis	10.00
Piano Accompanist's Course	10.00
Elements of Music	8.00

DUET LESSONS IN PIANO

One half hour lesson with one of the Professors.....\$ 6.00

Piano duets are free for all students who have Piano and Harmony.

Chorus is free for all music students.

Music History is free for all music students.

Piano practice periods in the Music Hall, 40 minutes, for term.....	\$ 1.00
For Music Library, Sheet Music for Chorus and Ensemble.....	1.00
Fees for certificates of any kind.....	2.00
Additions or duplicates	1.00
Organ practice periods, in Carnegie Hall, 1 hour, for the term.....	5.00
Certificates of Dismissal	1.50
Diplomas	3.00
Special Examinations	1.00

Tuition is payable invariably in advance. Students who have not paid their College bills or arranged for their payment, will be excluded from classes after the first week of the term. No matriculation or registration fees, or entrance fees to college athletic games are charged. A reduction of \$5 is made in the tuition for two lessons per week in Vocal, Piano, Organ, or Violin to the student who has already paid tuition for two lessons per week in another one of these branches.

GROVE CITY SCHOOL OF ART

Miss Lilian McConkey

The Grove City School of Art was organized in 1893, since which time there has been a manifest growth of art sentiment in the community. It is closely affiliated with Grove City College.

Miss Lilian McConkey, who received her training in some of the best art schools of this country and notably at the Academy of Fine Arts, Philadelphia, and who has had several years successful experience in teaching, was engaged to take charge of this work at the beginning of the year 1904-05.

Miss McConkey is a constant and conscientious student herself, and has the power of seeing nature with seeing eyes. She has also the gift of interpreting nature for others and gives to each pupil her careful and personal attention.

The remarkable showing upon our walls of each year's output in all the classes of the department in creative, as well as merely representative work, is evidence that students are being truly educated. The work reveals the sensitiveness that has been developed in them to all forms of beauty—beauty of form, of color, of line, of mass and of value, and with it the power to express those images of beauty which William M. Chase, the artist, so graphically calls the Oratory of Art.

The regular course in the fine arts is compassed by the average pupil in two years, if the entire time is spent in the studio. This includes four regular lessons a week from the instructor and personal criticisms in all the work done in her absence. The tuition for the full course work is \$28 a term. To those not wishing to follow the regular course of work, two lessons a week will be given for \$15 a term. Students, who desire to take literary work can do so by paying two dollars (\$2) for each credit hour in collegiate subjects. Art students who take music or commercial work, pay the full tuition in these respective department. Those students, desiring to take up art for public school work, will be furnished instruction along this

line. The foundation of the work will be the same as that required in the regular course, changes being made to suit the requirements of this work. The time for the completion of this course and the tuition will be the same as the other. This is a line of work that is practical and for which there is great demand. A large number of our graduates are successfully engaged in this work.

The following is a brief outline of the work compassed in Fine Arts:

Crayon Drawing from geometrical solids and vases with applied perspective. Lead pencil drawing from foliage and flowers from nature, with training in observation of plant growth for use in flower painting from nature.

Charcoal Drawing from still life as exercises in composition and for study of varied color values. Brush drawing in sepia and charcoal gray, from foliage, casts and still life. Practice for the handling of water color. Historic ornament; time sketching; perspective, antique drawing from casts of the human body; water color from the flat and from nature. Oil from the flat and from nature. China sketching; art history; outdoor sketching.

For those desiring to teach art in the schools, special work is outlined in mechanical drawing, design, historic ornament, figure and animal drawing, pictorial representation, art history, etc.

Miss McConkey recently prepared to give her pupils thorough training in all types and phases of china decoration. Exceptional opportunities are available in this department and if so desired, instruction will be given without previous training under the same careful guidance given those taking a more serious outlook of the subject.

COURSE IN FINE ARTS

First Year

FIRST TERM

Drawing from type forms.

Shading of type forms in charcoal and crayon.

Drawing from still life.

Study of plant growth.

Still life in charcoal.

Perspective.

Bust work in sepia.

SECOND TERM

Crayon work in bas-relief.
 Water color from the flat.
 Memory sketching.
 Time sketching.
 Work for historic ornament.
 Study of color from nature in simple forms.
 Composition.

THIRD TERM

Oil from the flat.
 Drawing from the casts of human figure.
 Sketching from nature in pencil.
 Harmony.
 Drawing from animals.
 Studies in life and action.
 Original compositions.

Second Year

FIRST TERM

Still-life in oil.
 Drawing from the antique.
 Design.
 Outdoor sketching in oil.
 Pose drawing.
 Biography in Art.

SECOND TERM

Drawing from the Antique.
 China painting.
 Original designing and decoration.
 Drawing from life.
 History of art.
 Scrub method in water color.
 Original studies.

THIRD TERM

Still life in water color.
 Drawing from the Antique.
 Drawing from life.
 Outdoor sketching in water color.
 Original illustration in black and white.
 Teaching.

RATES OF TUITION A TERM

Course in Fine Arts	\$28.00
Course in School Art	28.00
China Painting	15.00
Water Color	15.00
Oil	15.00

DEGREES AND HONORS

At the annual meeting of the Board of Trustees, June 10th, 1919, the following degrees were conferred; they were awarded at the Commencement, June 11th, 1919.

Bachelor of Arts

Helen Marie Baker.....	Grove City, Pa.
John Dodds Burton.....	Grove City, Pa.
Dorothy Rebekah Chamberlain.....	Grove City, Pa.
Jessie Carlene Christie.....	Grove City, Pa.
Grace Mabel Dinsmore.....	West Finley, Pa.
Elgie Leon Gibson.....	Petrolia, Pa.
Alice Martha Grimes.....	Claysville, Pa.
Mary Elizabeth Henderson.....	Glen Ritchey, Pa.
Ruth Howe.....	Grove City, Pa.
Martha King.....	Grove City, Pa.
Alice Belle Lewis.....	Punxsutawney, Pa.
Mae Lily Matson.....	Sigel, Pa.
Allen DeWitt Patterson.....	Franklin, Pa.
Ludwig C. Schaumberg.....	Niederzwehren bei Cassel, Germany
Julia Alvida Terihn.....	Ridgway, Pa.
William Thomas Ungard.....	Watsonstown, Pa.
William A. Webb.....	Baltimore, Md.

Bachelor of Literature

Margaret Berry Alexander.....	Grove City, Pa.
Helen Cooper.....	Grove City, Pa.
Ruth Cooper.....	Grove City, Pa.
Dorothy Edmunds.....	New Castle, Pa.
Margaret Jeanne Frew.....	Grove City, Pa.
Margaret Mae Irwin.....	Washington, Pa.
Opal Grace McRoberts.....	New Kensington, Pa.
Helen M. Munnell.....	Mercer, Pa.
Charlotte Elsie Reed.....	Erie, Pa.
Lola Mae Robins.....	Grove City, Pa.

Bachelor of Science

Eula Isabelle Blyholder.....	Kelly Station, Pa.
John T. Connell.....	Butler, Pa.
Elizabeth Humphrey.....	Grove City, Pa.
Emma Marie Knapp.....	Crafton, Pa.
H. Weir Morledge.....	Grove City, Pa.
James Brittain Robinson.....	Grove City, Pa.
Mabell Gertrude Sammons.....	Wattsburg, Pa.
Percy Leonard Shelley.....	Grove City, Pa.
Bertha Kathleen Taylor.....	Canonsburg, Pa.
Vergil Wesley Thomas.....	Coraopolis, Pa.
James Lorrin Whitehill.....	Hookstown, Pa.

Bachelor of Science in Chemical Engineering

Paul Walker Edeburn.....West Middlesex, Pa.

Music

Pearl HodgeGrove City, Pa.
 Katherine Elizabeth Hutchins.....Mechanicsville, N. Y.
 Marie Jane Ruffing.....Grove City, Pa.
 Gladys Annette Turner.....New Castle, Pa.
 Iradelle Marie Walker.....Worthington, Pa.

Secretarial

Lois BlackGrove City, Pa.
 Mary Alice Campbell.....Grove City, Pa.
 Helen CooperGrove City, Pa.
 Ruth CooperGrove City, Pa.
 Elda DicksonNew Martinsville, W. Va.
 Emily Norine Hoxworth.....Canonsburg, Pa.
 Alan Moore Jones.....Corsica, Pa.
 Anna Evelyn Kuhn.....Grove City, Pa.
 Donna Rachel Limber.....Jackson Center, Pa.
 Marian E. Moore.....Mercer, Pa.
 Lenora Gertrude Pierce.....Sharon, Pa.
 Mary Genevieve Riddle.....Emlenton, Pa.
 Evelyn Marie Rupert.....Grove City, Pa.
 Della Marie Smith.....Franklin, Pa.

Master of Arts in Cursu

Elizabeth Poillon Shiner.....Gloversville, N. Y.

Doctor of Philosophy in Cursu

Charles Peters, Pastor of the Saint Paul's Reformed Church of Buffalo,
 N. Y.
 Emanuel Conceicao Pires, Pastor of the Central Presbyterian Church
 of Erie, Pa.

Doctor of Divinity Causa Honoris

W. A. Kinter, of the Presbyterian Banner.
 Reverend John H. Lawrence, '98, Head of the Mission Training School
 of Marpuri, India.
 Reverend R. H. Merrill, President of the Pittsburgh Academy.
 Reverend John A. Rodgers, '93, Board of Home Missions of the Presby-
 terian Church.

Special Certificate in Oratory

John Dodds Burton

Honors

Cum laude—Ethel Myra Metzgar, Helen M. Munnell, Martha King,
 Mabel Gertrude Sammons, Jessie Carlene Christie.

ROSTER OF STUDENTS

Post Graduates

Hill, Robert	Grove City, Pa.
Koontz, Norman	Jamestown, North Dakota
Johnston, Ora E.	Grove City, Pa.
McCune, George	Grove City, Pa.
Means, Herbert G.	North Braddock, Pa.
Shiner, Elizabeth P.	Gloversville, N. Y.

Seniors

Alexander, A. L.	Grove City, Pa.
Alter, Ruth	Anniston, Ala.
Baker, Harold K.	Hindman, Kentucky
Barnes, Wilda	Slippery Rock, Pa.
Bowser, John A.	Kittanning, Pa.
Chamberlain, Elizabeth	Grove City, Pa.
Christy, Mary	Grove City, Pa.
Collart, Winsor	Grove City, Pa.
Cribbs, William J.	Grove City, Pa.
Foltz, Ruth	Grove City, Pa.
Grace, Bessie	Grove City, Pa.
Gregg, Wilbur R.	Grove City, Pa.
Grosse, Blythe	Vandergrift, Pa.
Heckert, Joseph	Bakerstown, Pa.
Hepler, Elizabeth	Butler, Pa.
Hoban, J. Albro.	Dunmore, Pa.
McCune, Grace	Grove City, Pa.
Mizner, Mildred	Wheatland, Pa.
Ritchey, Harold S.	Grove City, Pa.
Robertson, Mary	Cowansville, Pa.
Stewart, David B.	Parnassus, Pa.
Weil, Edgar E.	Braddock, Pa.
Wiggins, Margaret	Vandergrift, Pa.
Total, 23; Men, 11; Women, 12.	

Qualifying Seniors

Ackley, Lee	Sigel, Pa.
Baer, Harold K.	New Castle, Pa.
Deily, Myron B.	Nanticoke, Pa.
Hartt, Helen	Mercer, Pa.
Magee, Carbus	Slippery Rock, Pa.
Moore, Jessie	Grove City, Pa.
Nesbitt, Agnes	New Castle, Pa.
Reicherter, Emily	Brookville, Pa.
Richardson, Amelia	Kittanning, Pa.
Studebaker, J. J.	Grove City, Pa.
Tinker, Lorraine	Grove City, Pa.
Uber, Arthur	Grove City, Pa.
Total, 12; Men, 6; Women, 6.	

Juniors

Black, Elizabeth	Franklin, Pa.
Black, LeRoy T.	Parkers Landing, Pa.
Dunlap, Hazel	Grove City, Pa.
Crossman, Mrs. R. P.	Grove City, Pa.
Gould, George	Grove City, Pa.
Graham, Elfrieda	Grove City, Pa.
Hodge, Mont	Grove City, Pa.
Hosick, Mary	Grove City, Pa.
Humphrey, Julia	Harrisville, Pa.
Irwin, Lois	Evans City, Pa.
McCoy, Eugene	Emlenton, Pa.
McGranahan, Isabelle	Beaver, Pa.
Magee, Ralph	Grove City, Pa.
Montgomery, Hazel	Grove City, Pa.
Niece, Alice	Grove City, Pa.
Patterson, Charles L.	Grove City, Pa.
Patton, Chester W.	Parkers Landing, Pa.
Raymond, Mark L.	Raymilton, Pa.
Robinson, Ernestine	Grove City, Pa.
Schaeffer, Edna	Edgewood, Pa.
Smith, Logan	Falls Creek, Pa.
Vaughn, Robert	Hadley, Pa.
Ward, Roscoe H.	Pleasantville, Pa.
Ware, C. F.	Townville, Pa.
Webster, Marie	Harveys, Pa.
Wertman, C. E.	Franklin, Pa.
Younggren, Esther	Ridgway, Pa.
Total, 27; Men, 13; Women, 14.	

Sophomores

Allison, Maude	Grove City, Pa.
Augustine, Paul	Pittsburgh, Pa.
Baker, Wade	Raymilton, Pa.
Barnes, Charles	Jackson Center, Pa.
Battista, Lucy	Dunmore, Pa.
Belin, Victor G.	Smoke Run, Pa.
Black, James H.	Grove City, Pa.
Bricker, Grace	Cabot, Pa.
Buxton, Paul	Valencia, Pa.
Caldwell, Agnes	Butler, Pa.
Cameron, Francis W.	New Castle, Pa.
Campbell, Charlotte	Grove City, Pa.
Clarke, R. W.	West Middlesex, Pa.
Davidson, Marjorie	Evans City, Pa.
Filer, Rollin	Grove City, Pa.
Forrest, Helen M.	Grove City, Pa.
Garber, Laura	Bellevue, Pa.
Gilmore, Elsa	Grove City, Pa.
Harbridge, Austin V.	DuBois, Pa.
Henderson, Katherine	Glen Richey, Pa.
Henry, Allan	Grove City, Pa.
Herron, Wilmer B.	Fredonia, Pa.
Hespenheide, Frances	Mars, Pa.
Horst, Eugene	Wilkinsburg, Pa.
Leslie, Allurah	New Gallilee, Pa.
McCandless, Porter	Slippery Rock, Pa.

McCoy, Martha	Grove City, Pa.
McMullen, Genevieve	Grove City, Pa.
Maharg, John	Renfrew, Pa.
Morledge, Joseph	Grove City, Pa.
Munnell, Mabel	Mercer, Pa.
Onstott, Ruth	Saltsburg, Pa.
Peterson, Robert E.	Bradford, Pa.
Ralston, Doris	Zelienople, Pa.
Rohrer, Marguerite	Albion, Pa.
Salazar, Jose	Merida, Yucatan, Mex.
Sammons, William D.	Wattsburg, Pa.
Sheldon, George	Springboro, Pa.
Shelley, Martha	Grove City, Pa.
Simmons, Jane	Grove City, Pa.
Sisley, J. Robert	Grove City, Pa.
Smith, Wendell P.	Oil City, Pa.
Taggart, Leona	Grove City, Pa.
Tinker, Annie	Grove City, Pa.
Tinker, Helen	Emlenton, Pa.
Vance, William P.	Grove City, Pa.
Vandervort, J. J.	Brockwayville, Pa.
Venen, Darwin P.	Springboro, Pa.
Walter, Floyd	Export, Pa.
Weinstein, Isadore B.	Mars, Pa.
Williams, R. D.	Grove City, Pa.
Williamson, Florence	New Martinsville, W. Va.
Wood, Floyd	Grove City, Pa.
Young, Paul	Grove City, Pa.

Total, 54; Men, 30; Women, 24.

Freshmen

Agnew, William	Parkers Landing, Pa.
Ahearn, William	Grove City, Pa.
Alexander, Hodge	Grove City, Pa.
Allen, W. J.	Franklin, Pa.
Amacher, J. F.	Ridgway, Pa.
Anderson, Clarence R.	Slippery Rock, Pa.
Anderson, W. M.	Butler, Pa.
Appleyard, Samuel	Beaverdale, Pa.
Bailey, Roy E.	Pleasantville, Pa.
Ball, Edwin J.	Mahoningtown, Pa.
Barber, George D.	Oil City, Pa.
Barnard, Harold	Dayton, Pa.
Barnard, John I.	Dayton, Pa.
Beggs, Rowan E.	Sandy Lake, Pa.
Bell, Burton J.	Warren, Pa.
Black, Arthur H.	Volant, Pa.
Bovee, Harold E.	Grand Valley, Pa.
Bovee, Wallace M.	Grand Valley, Pa.
Brown, Paul H.	West Sunbury, Pa.
Buchan, John H.	Mingo Junction, O.
Burns, Arthur	Hilliard, Pa.
Burrows, Merle R.	Grove City, Pa.
Burton, James W.	Grove City, Pa.
Caldwell, Ellis	Sharon, Pa.
Campbell, Max	West Sunbury, Pa.
Carr, Deryl W.	Grove City, Pa.
Chick, Joseph L.	DuBois, Pa.

Christie, James D.....	Grove City, Pa.
Clark, Boyd B.....	Beech Creek, Pa.
Conner, Ralph.....	Grove City, Pa.
Conroy, Harry L.....	Warren, Pa.
Cornell, Lester.....	Fredonia, Pa.
Cowan, William R.....	Corsica, Pa.
Cross, Carroll E.....	Bruin, Pa.
Cross, Webster M.....	Bruin, Pa.
Currie, Robert.....	Cresson, Pa.
Davis, Genevieve.....	Grove City, Pa.
Davis, Jenkin W.....	Oil City, Pa.
Dickinson, BenWade O.....	Mercer, Pa.
Doutt, Ralph.....	Polk, Pa.
Dow, Walter B.....	Grove City, Pa.
Dunn, Arthur M.....	West Sunbury, Pa.
Eckman, Ronald E.....	Pittsburgh, Pa.
Ediburn, Leroy.....	West Middlesex, Pa.
Ensworth, Winston P.....	Waterford, Pa.
Fails, Allan.....	Livermore, Pa.
Filer, Arthur F.....	Grove City, Pa.
Filer, Lloyd J.....	Grove City, Pa.
Fleming, J. L.....	Pleasantville, Pa.
Forrester, Chester E.....	Grove City, Pa.
Foster, Albert.....	Oil City, Pa.
Frazer, Charles.....	Steubenville, O.
Ghost, William A.....	Grove City, Pa.
Gibson, S. H.....	Grove City, Pa.
Glasgow, George.....	Vandergrift, Pa.
Goodwin, Frank.....	Oil City, Pa.
Graham, Owen H.....	Franklin, Pa.
Hamilton, William J.....	Grove City, Pa.
Harriger, Clifford.....	Clarion, Pa.
Hartman, Alfred.....	Scranton, Pa.
Hassell, Frederick W.....	Grove City, Pa.
Hause, Nellie.....	Mercer, Pa.
Hazlett, Mary.....	Grove City, Pa.
Heasley, E. C.....	Mercer, Pa.
Hettenbaugh, Christina.....	Grove City, Pa.
Highbarger, Paul.....	Mercer, Pa.
Himrod, Alfred E.....	Waterford, Pa.
Himrod, Tracey W.....	Waterford, Pa.
Hoesch, Ellwood M.....	Greenville, Pa.
Hollister, H. J.....	Franklin, Pa.
Hough, Clarence.....	Grove City, Pa.
Hoyt, Olin B.....	Oakfield, N. Y.
Humphreys, Donald.....	Brockwayville, Pa.
Jack, Frank.....	North Washington, Pa.
Jamison, Mary.....	Emlenton, Pa.
Jameson, Theodore E.....	Erie, Pa.
Johnson, Almer W.....	Ridgway, Pa.
Johnston, Frank.....	Farrell, Pa.
Jolly, James H.....	Pittsville, Pa.
Kane, Cyril E.....	Dunmore, Pa.
Kane, Cyrus E.....	Cresson, Pa.
Kelso, John.....	Avalon, Pa.
Korb, Stanley.....	Warren, Pa.
Korona, Louis W.....	Argentine, Pa.
Krish, John.....	Gallitzin, Pa.
Kuhen, Jay D.....	Grove City, Pa.

Kymer, George	Hazel Hurst, Pa.
Lash, Dale W.	Oil City, Pa.
Lindquist, Ruth	Millvale, Pa.
Little, Roy E.	Kennard, Pa.
Lyons, Ernest	Lanse, Pa.
McBride, Arthur	Grove City, Pa.
McCracken, Theodore	Mahaffey, Pa.
MacDowell, Kenneth	Sharon, Pa.
McElligott, Leo	Butler, Pa.
McGaughey, Jay	Monessen, Pa.
McGill, Charles	Harrisville, Pa.
McLane, Jack	Oil City, Pa.
McLaughlin, John	Shippensville, Pa.
McMichael, Kenneth	Butler, Pa.
Miller, Glen B.	Clintonville, Pa.
Miller, Lewis	Monessen, Pa.
Morris, F. R.	Grove City, Pa.
Murray, Donald G.	Grove City, Pa.
Nevin, Neal	Homestead, Pa.
Nicklin, Maurice	Bradford, Pa.
Paxton, Wilson	Grove City, Pa.
Peckens, Clarence	Scranton, Pa.
Peterson, Peter C.	Erie, Pa.
Philips, John	Butler, Pa.
Pool, William R.	New Castle, Pa.
Randall, Walter	Sharpsville, Pa.
Rowe, John R.	Betula, Pa.
Russell, Richard	Butler, Pa.
Seanor, William H.	New Alexandria, Pa.
Sellors, John	Fredonia, Pa.
Shadle, Edward	Clarion, Pa.
Shuck, Edmund	Bedford, Pa.
Speer, William	Harrisville, Pa.
Spencer, Donald	Chandlers Valley, Pa.
Sterrett, Charles	Jackson Center, Pa.
Stettler, Christ	Girard, Pa.
Stevenson, Enos F.	Prospect, Pa.
Stewart, Arthur	Sharpsville, Pa.
Stewart, Margaret	Coal Glen, Pa.
Struthers, James	Grove City, Pa.
Theuerkauf, Frank	Erie, Pa.
Thompson, Harold	Franklin, Pa.
Tinker, Ruth	Wick, Pa.
Vath, Harry	Sandy Lake, Pa.
Venen, Frances	Springboro, Pa.
Watson, William	Prospect, Pa.
Wert, Worron E.	Sharpsville, Pa.
White, Frank	Grove City, Pa.
Wick, C. Wayne	Parkers Landing, Pa.
Williams, E. L.	Youngstown, O.
Winslow, Harry	Brockport, Pa.
Wise, George	Butler, Pa.
Wise, Raymond	Braddock, Pa.
Wittman, Edwin	St. Marys, Pa.
Wright, Emerson	Sandy Lake, Pa.
Young, Harvey	Grove City, Pa.

Total, 146; Men, 136; Women, 10.

Sub-Freshmen and Special

Albert, Charles	McKees Rocks, Pa.
Alworth, James M.....	Parkers Landing, Pa.
Baird, W. S.....	Edenburg, Pa.
Balcerak, John R.....	Mt. Pleasant, Pa.
Banks, John A.....	Dunmore, Pa.
Barber, Betty	Grove City, Pa.
Beamer, R. K.....	Murrysville, Pa.
Beatty, W. W.....	Clarion, Pa.
Black, Duncan	Pittsburgh, Pa.
Black, Paul M.....	Grove City, Pa.
Bishop, Sara	Pittsburgh, Pa.
Boyd, James	Cherry Valley, Pa.
Boyd, Momfred	Cherry Valley, Pa.
Buechner, Harld	Vandergrift, Pa.
Burke, Edmund	Dunmore, Pa.
Calderwood, Helen	Grove City, Pa.
Campbell, Harry	Slippery Rock, Pa.
Campbell, Sutherland	Beaver, Pa.
Cartwright, Oscar L.....	Sharpsville, Pa.
Childs, Floyd E.....	California, Pa.
Clark, LeRoy	Grove City, Pa.
Conklin, Jane	Washington, Pa.
Cober, Ira T.....	Berlin, Pa.
Connolly, Hugh	Pittsburgh, Pa.
Cook, E. S.....	Shippensburg, Pa.
Cooney, J. H.....	Dunmore, Pa.
Cornell, Floyd	California, Pa.
Cotton, Stanley	Volant, Pa.
Cummins, Laura	Grove City, Pa.
Curry, Agnes	Grove City, Pa.
Daugherty, Helen	Grove City, Pa.
Daugherty, James	Falls Creek, Pa.
Daugherty, Joseph	Meyersdale, Pa.
Davies, Rutherford E.....	Taylor, Pa.
Davis, Clare T.....	Eau Claire, Pa.
Dean, Theodore	New Castle, Pa.
Dixon, Iva	Coal Center, Pa.
Donovan, Charles	Costello, Pa.
Dunlap, F. H.....	Grove City, Pa.
Dunlap, Willard	Grove City, Pa.
Eakin, Isabelle	Washington, D. C.
Elder, Margaret	Pittsburgh, Pa.
Emery, Orville	New Castle, Pa.
English, Raymond A.....	Huntington, Pa.
Evans, Ewart	Sharon, Pa.
Fails, Thomas G.....	Livermore, Pa.
Fithian, Mary	Oak Hill, Pa.
Floyd, Clarence	Grove City, Pa.
Forrest, John	Grove City, Pa.
Fowler, Edwin A.....	Stoneboro, Pa.
Frew, H. M.....	New Castle, Pa.
Garland, Paul B.....	Bellwood, Pa.
Garritt, H. P.....	Ridgway, Pa.
Geus, C. J.....	Gallitizin, Pa.
Gilmore, H. D.....	Edenburg, Pa.
Glaser, G. F.....	Pottsville, Pa.
Glunt, Robert	Apollo, Pa.

Graham, Victor	Mercer, Pa.
Gray, Lillian	Amity, Pa.
Green, John	Murrysville, Pa.
Gregory, Franklin	New Castle, Pa.
Gregory, K. C.	Mill Village, Pa.
Gribbin, Joseph	Dunmore, Pa.
Harmon, Cassandra	Chicago, Ill.
Harmon, Herbert	Grove City, Pa.
Harvey, John	Latrobe, Pa.
Hazlett, Aldene	Frostburg, Pa.
Healey, Thomas J.	Moosic, Pa.
Heckathorne, R. E.	New Castle, Pa.
Henderson, H. M.	Pleasantville, Pa.
Henshaw, Harry	Houtzdale, Pa.
Hershelman, M. J.	Springboro, Pa.
Hewitt, Everett	Waterford, Pa.
Higley, Merland	Lundy's Lane, Pa.
Hill, Milo V.	Sandy Lake, Pa.
Humphrey, Victor	Grove City, Pa.
Ingham, Fenton	New Castle, Pa.
Johnston, Mrs. Ethel	Greenville, Pa.
Jung, John H.	Cambridge Springs, Pa.
Justham, Thomas W.	Reynoldsville, Pa.
Keefer, Floyd	Pitcairn, Pa.
Kelly, Waid	Grove City, Pa.
Kifer, Byron	Clarion, Pa.
King, James	Grove City, Pa.
Kitchell, Harold	Oil City, Pa.
Kuhns, John E.	Franklin, Pa.
Kutscher, Charles	Braddock, Pa.
Laudato, Andrew	Cleveland, O.
Lerman, Dorothy	Midland, Pa.
Lindsey, James	Portland Mills, Pa.
Love, Raymond	Sharpsville, Pa.
Lyons, Frank	Olyphant, Pa.
McCandless, Garrett	Grove City, Pa.
McCandless, Lee	Euclid, Pa.
McCartney, Orlando	Sharon, Pa.
McClure, Robert	Braddock, Pa.
McConnell, Blanche	Grove City, Pa.
McConnell, Dufferin	Wilkinsburg, Pa.
McCreary, Ralph	Erie, Pa.
McCullough, Walter	Vandergrift, Pa.
McDowell, Sara	Kennerdell, Pa.
McElhinney, James	Mahaffey, Pa.
McGovern, Thornton	Brockport, Pa.
McHenry, Clair	Clarion, Pa.
McIlwain, G. C.	Pittsburgh, Pa.
McIlwain, S. R.	Pittsburgh, aP.
McKee, George	Pittsburgh, Pa.
McKimm, Jeannette	Ellwood City, Pa.
McMillin, Frederick W.	Youngstown, O.
McMillan, James	New Castle, Pa.
Madison, Lewis	Baldwin, Pa.
Manson, Herbert	Kennerdell, Pa.
Markley, Clifford	Townville, Pa.
Master, Carl	Fern, Pa.
Miller, Donald	Bellwood, Pa.
Moguel, Alfredo	Merida, Yucatan, Mex.

Morgan, Morelle	McKeesport, Pa.
Moss, Lee	Iola, Ill.
Mottern, Grant	Brookville, Pa.
Muller, Carl	Ligonier, Pa.
Myers, Charles	Utica, Pa.
Myers, Esther	Indiana, Pa.
Neeley, C. L.	Foxburg, Pa.
Officer, Samuel P.	Franklin, Pa.
Ollson, Elton A.	Mahoningtown, Pa.
Popp, Rozella	New Castle, Pa.
Potter, Howard	Kennerdell, Pa.
Powell, Thomas B.	Shadeland, Pa.
Price, T. L.	Shamokin, Pa.
Raub, Clifford	Vandergrift, Pa.
Ray, Harvey	Springboro, Pa.
Reese, Caroline	Tyrone, Pa.
Reinhart, Alice	Early, Iowa
Renninger, Lotta	Franklin, Pa.
Richards, William	Warren, Pa.
Rieman, Elizabeth	Meadville, Pa.
Robinson, Martha	Grove City, Pa.
Robison, Harold	Clearfield, Pa.
Rogers, Manuel	Conneaut, O.
Ross, Nellie	Grove City, Pa.
Rugh, James	New Castle, Pa.
Schaeffer, Theresa	Sandy Lake, Pa.
Schnarrenberger, Lucas	Pittsburgh, Pa.
Seinar, Leonard	California, Pa.
Shea, Frank	Erie, Pa.
Shaw, S. Benjamin	Brockwayville, Pa.
Sheldon, Frank	Springboro, Pa.
Shillito, Harold	Grove City, Pa.
Simpson, Floyd	Utica, Pa.
Sisney, William	Emlenton, Pa.
Sloan, Earl	Parkers Landing, Pa.
Smith, D. H.	Cleveland, O.
Snyder, George	Dillonvale, O.
Snyder, Grace	Dickerson Run, Pa.
Snyder, Nellie	Dickerson Run, Pa.
Speer, Paul	Apollo, Pa.
Spro, William	Sharpsville, Pa.
Stahl, Robert	Braddock, Pa.
Stephenson, William	Mahaffey, Pa.
Stevens, Donald	Conneautville, Pa.
Steward, Edwin	Albion, Pa.
Stewart, Gertrude	Natrona, Pa.
Stoops, William	Karns City, Pa.
Swift, Donald	Dunmore, Pa.
Taylor, Charles	New Castle, Pa.
Thompson, Floyd	Keister, Pa.
Thompson, John	Erie, Pa.
Turner, Alfred	Grove City, Pa.
Turner, John	New Castle, Pa.
Veon, Agnes	Darlington, Pa.
Vogle, William	Houtzdale, Pa.
Wadsworth, Ralph	Erie, Pa.
Walker, Frank	Berlin, Pa.
Waxman, Boris	Warren, Pa.
Weaver, Harvey	Emlenton, Pa.

Welch, George	Grove City, Pa.
White, Zella	Reynoldsville, Pa.
Wiester, Merle	Apollo, Pa.
Williams, Deloss	Petrolia, Pa.
Wilson, Ned	Linesville, Pa.
Wolf, Edward	Erie, Pa.
Total, 181; Men, 148; Women, 33.	

Secretarial Department, First Year

Cannon, Mary M.	Grove City, Pa.
Cruickshank, Gladys	Valencia, Pa.
Davis, Lillian	Grove City, Pa.
Frew, Josephine	Grove City, Pa.
Gilmore, Elsa	Grove City, Pa.
Graden, Roxie	Grove City, Pa.
Hettenbaugh, Christina	Grove City, Pa.
Hinsdale, Ralph W.	Grove City, Pa.
Hoch, Evelyn	Grove City, Pa.
Hosack, Kathryn	Mercer, Pa.
Howe, J. G.	Grove City, Pa.
Humphrey, Lois	Grove City, Pa.
Infield, Carl	Jackson Center, Pa.
Kilchenstein, Laila	Sharon, Pa.
McCune, Martin	Grove City, Pa.
Mollenauer, Carrie	Wylandville, Pa.
Organ, ElMora	Sharon, Pa.
Surrena, Harland	Grove City, Pa.
Thomas Bernice	Ellwood City, Pa.
Total, 19; Men, 5; Women, 14.	

Secretarial Department, Second Year

Allison, Janet	Punxsutawney, Pa.
Bell, Elizabeth	Punxsutawney, Pa.
Bricker, Grace	Cabot, Pa.
Chamberlain, Robert	Grove City, Pa.
Crawford, Margaret	Grove City, Pa.
Dixon, Anna	Clymer, Pa.
Filer, Ruth	Grove City, Pa.
Glenn, Grace	Mercer, Pa.
Hainley, Susan	Vandergrift, Pa.
Jennings, Dorothy	Tidioute, Pa.
Kennedy, Mary	Franklin, Pa.
Kingsley, Anna	Grove City, Pa.
Knauff, Stella	Grove City, Pa.
McCracken, James	Mahaffey, Pa.
McElligott, Edithmarion	Butler, Pa.
Matthews, Ralph	Harrisville, Pa.
Mehrton, Ruth	Knox, Pa.
Moore, Alice	Mosgrove, Pa.
Myers, Ralph	Bruin, Pa.
Rupert, Alice	Grove City, Pa.
VanWoert, Kathleen	Donora, Pa.
White, Margaret R.	Skaneateles, N. Y.
Winder, Jessie	Grove City, Pa.
Total, 23; Men, 4; Women, 19.	

Pedagogy Students—Summer Term, 1919

Acheson, Marie	DuBois, Pa.
Albert, Laura	DuBois, Pa.
Allison, John	Grove City, Pa.
Allison, Mary	Grove City, Pa.
Allen, Susanna	Grove City, Pa.
Almes, Frances	Saltsburg, Pa.
Alworth, James M.	Parkers Landing, Pa.
Anderson, Edith	Instanter, Pa.
Archer, Millie M.	Washington, Pa.
Aubel, Zella	Jamestown, Pa.
Ayres, Lillie	McKeesport, Pa.
Bailey, Sara	Johnstown, Pa.
Baker, Ella M.	Saltsburg, Pa.
Baker, Helen	Grove City, Pa.
Banasiewicz, Katherine ..	Midland, Pa.
Barger, Bess	St. Petersburg, Pa.
Barnes, Helen	Grove City, Pa.
Barnes, Mabel	Latrobe, Pa.
Barnett, Mary	Latrobe, Pa.
Barth, Elizabeth	McKeesport, Pa.
Bates, Harriett	St. Benedict, Pa.
Bauer, Anne	Tititoute, Pa.
Bauer, Leona	Vandergrift, Pa.
Baumgardner, J. M.	South Fork, Pa.
Bedell, Agnes	McKeesport, Pa.
Behe, Mary	Lilly, Pa.
Beil, Beatrice	Greenville, Pa.
Berg, Lulu	Cokeville, Pa.
Bildstein, Pearl	Fair Haven, Pa.
Bishop, Sara	Pittsburgh, Pa.
Blair, Jeannette	Carlisle, Pa.
Bortz, Edith	Apollo, Pa.
Bourns, Helen	Ellsworth, Pa.
Brennan, Nell	Kingston, Pa.
Brock, Juanita	Spraggs, Pa.
Brown, Hazel	Slippery Rock, Pa.
Brown, Hazel I.	Butler, Pa.
Buckingham, Verna	Scenery Hill, Pa.
Burket, Annie	Hollidaysburg, Pa.
Burkett, Mary	Midway, Pa.
Cain, Vena	McDonald, Pa.
Callahan, Kathryn	Leeper, Pa.
Campbell, Martha	McGee's Mills, Pa.
Capehart, Jean	Midland, Pa.
Capella, Martha	Brockport, Pa.
Carroll, Ella	Avoca, Pa.
Carroll, Reita	Taylorstown, Pa.
Coleman, Erla	Grove City, Pa.
Collins, Hester	Uniontown, Pa.
Colton, Mary	Carlton, Pa.
Comer, Lou	Monongahela, Pa.
Connelly, Mabel	Uniontown, Pa.
Cooper, Mary	Livermore, Pa.
Cosgrove, Bea	Pittston, Pa.
Couch, Nellie	Parkwood, Pa.
Coulter, Eugenie	Grove City, Pa.
Cox, Edna	Enon Valley, Pa.

Coyle, Elsie	Johnstown, Pa.
Cramer, Alma	Cresson, Pa.
Cramer, Gertrude	Cresson, Pa.
Cease, Ivy	Pleasant Unity, Pa.
Creighton, Jennie	Mercer, Pa.
Crill, Gladys	Mercer, Pa.
Crissman, Margaret	Altoona, Pa.
Cromer, Mary	Midway, Pa.
Daugherty, Elizabeth	Rossiter, Pa.
Davenport, Melda	New Castle, Pa.
Davis, Agnes	Grove City, Pa.
Day, E. Paul	Amity, Pa.
DeBray, Cora	Altoona, Pa.
Dible, Margaret	Parkwood, Pa.
Dickey, Edithe	Avonmore, Pa.
Dill, Agnes	Weedville, Pa.
Dills, Alma	Duryea, Pa.
Dixon, Ethel	Johnstown, Pa.
Dockman, Anna	New Castle, Pa.
Dodd, Leila	Grove City, Pa.
Duchene, Lillian	Midland, Pa.
DuWell, Ralph	Johnstown, Pa.
Eberhart, Mary	New Geneva, Pa.
Elwood, Myrtle	Murrysville, Pa.
Emert, Mrs. Grace	East Liberty, Pittsburgh, Pa.
Erickson, Edith	Kane, Pa.
Evans, Margaret	Wheatland, Pa.
Ewing, Bertha	Smithfield, Pa.
Ferguson, Marie	Burgettstown, Pa.
Finnucan, Mary	Springboro, Pa.
Fitzpatrick, Ruth	Trevorton, Pa.
Fleck, Genevieve	Conamaugh, Pa.
Fowler, Bertha	Smithfield, Pa.
Free, Ora	Sheakleyville, Pa.
Frost, Frances	Stoneboro, Pa.
Frost, Dorothy	Stoneboro, Pa.
Gallagher, Jennie	Prospect, Pa.
Gallagher, Noel	Prospect, Pa.
Glassburn, Willa	Connellsville, Pa.
Gillingham, Margaret	Donora, Pa.
Good, Sara	Clymer, Pa.
Gooze, Luella	West Middlesex, Pa.
Gordon, Mary	Rochester, Pa.
Gordon, Sara	McDonald, Pa.
Goswell, Mary	Salina, Pa.
Gregory, Ethel	Shickshinney, Pa.
Griffith, Margaret	Luzerne, Pa.
Groves, Catherine	Leechburg, Pa.
Guth, Gertrude	Dickerson Run, Pa.
Gwynn, Lula	Greensburg, Pa.
Haines, Effie	Brookville, Pa.
Hall, Rosalyn	Markleton, Pa.
Hampton, Myrtle	Ford City, Pa.
Harshberger, Orpha	Johnstown, Pa.
Hassel, Mary	Grove City, Pa.
Hatcher, Anna	Johnstown, Pa.
Haun, Alice	Sandy Lake, Pa.
Haun, Mildred	Mercer, Pa.
Hawkins, Nell	Sharpsburg, Pa.

Hawthorne, Helen	Millsboro, Pa.
Headley, Pauline	Brock, Pa.
Henry, Olive	Penn Run, Pa.
Hepler, Mary	Corsica, Pa.
Herman, Laura	Rochester, Pa.
Hettenbaugh, Margaret	Grove City, Pa.
Hodge, Margaret	Grove City, Pa.
Hodge, Pearl	Grove City, Pa.
Hoffman, Viola	McKeesport, Pa.
Hopkins, Norma	Townville, Pa.
Horne, Gertrude	Mercer, Pa.
Horne, Marian	Mercer, Pa.
Horning, Jennetta	DuBois, Pa.
Hosack, Mabel	Mercer, Pa.
Hostetler, Bernard	Casselman, Pa.
Hughes, Margaret	Wilmore, Pa.
Hutchins, Katherine	Mechanicsville, N. Y.
Jaycox, Grace	Sheffield, Pa.
Johnson, Blanche	Kane, Pa.
Johnson, Hilda	Johnsonburg, Pa.
Johnson, Jessie	Austin, Pa.
Johnson, Lelia	Benezette, Pa.
Jones, Margaret	Uniontown, Pa.
Johnston, Twila	Mahaffey, Pa.
Jordan, Mae	Valier, Pa.
Kapp, Pearl	Oil City, Pa.
Kapp, Meedie	Altoona, Pa.
Karney, Ella Mae	Springboro, Pa.
Karney, John	Springboro, Pa.
Kearns, Josephine	Driftwood, Pa.
Kelly, Myra	Punxsutawney, Pa.
Kerr, Rose	Kingsville, Pa.
Kline, Lillie	Vandergrift, Pa.
Knarr, Malinda	DuBois, Pa.
Krissinger, Adda	Berlin, Pa.
Larson, Edith	Smethport, Pa.
Lash, Genevra	Vandergrift, Pa.
Leighty, Mary	Vanderbilt, Pa.
Lewis, Ceinwen	New Castle, Pa.
Lewis, Margaret	Washington, Pa.
Liggett, Marie	Huff, Pa.
Livingston, Ruth	Greenville, Pa.
Lyons, Grace	Industry, Pa.
McCabe, Helen	Meadville, Pa.
McCalmont, Eltha	Hickory, Pa.
McCandless, Gladys	Grove City, Pa.
McClellan, Hazel	Avonmore, Pa.
McCowan, Elsie	Oakdale, Pa.
McCrea, Nellie	Mercer, Pa.
McCullough, Frances	Mercer, Pa.
McCurdy, Dorcas	Saltsburg, Pa.
McCurdy, Jennie	Saltsburg, Pa.
McGee, Mary	Roxsbury, Pa.
McKown, Edith	Coraopolis, Pa.
McMahan, Claire	Parkers Landing, Pa.
Magill, Christine	Tarentum, Pa.
Means, Mabelle	Wilkinsburg, Pa.
Miles, D. E.	Plymouth, Pa.
Miles, Rebekah	Mercer, Pa.

Milholland, Marguerite	Hazelhurst, Pa.
Minnick, Hazel	Johnsonburg, Pa.
Mitchell, Georgia	Latrobe, Pa.
Mitchell, Leona	Eau Claire, Pa.
Moore, Florence	Latrobe, Pa.
Moore, Violet	Saltsburg, Pa.
Mullen, Rose	Portage, Pa.
Munger, Ashleigh	Burgettstown, Pa.
Munger, Rhea	Burgettstown, Pa.
Munnell, Ada	Mercer, Pa.
Morley, Susie	Gold, Pa.
Murphy, Clo	Johnstown, Pa.
Murphy, Teresa	Pittston, Pa.
Myers, Anella	Jeannette, Pa.
Offutt, Gladys	Volant, Pa.
Ogden, Ruth	Clearfield, Pa.
Oliver, Elzada	Leechburg, Pa.
Ormsby, Ethel	Bradford, Pa.
Osborne, Lavina	Sandy Lake, Pa.
Patterson, Mildred	Stoneboro, Pa.
Peden, Bessie	Sandy Lake, Pa.
Peebles, Genevieve	Grove City, Pa.
Pennington, Helen	Parkers Landing, Pa.
Phipps, Artie	Clintonville, Pa.
Plummer, Margaret	Summerville, Pa.
Pratt, Anna	McKeesport, Pa.
Price, Anna	Edwardsville, Pa.
Ramsey, Bertha	Rochester, Pa.
Ramsey, Nora	Hanlin Station, Pa.
Ray, Lulu	Queen Junction, Pa.
Reichart, Lavina	Emlenton, Pa.
Reisinger, Austa	Franklin, Pa.
Reitz, Mabel	Ohl, Pa.
Rhine, Cleo	Johnstown, Pa.
Richardson, Edna	Edri, Pa.
Riegel, Louise	Johnstown, Pa.
Riegel, Pauline	Johnstown, Pa.
Ripple, Lorena	Austin, Pa.
Ritner, Bee	Bruin, Pa.
Roberts, Blanche	New Salem, Pa.
Roberts, Florence	Mercer, Pa.
Roberts, Louisa	New Salem, Pa.
Ross, Grace	Grove City, Pa.
Ruffing, Marie	Grove City, Pa.
Rumbaugh, Anna	Mt. Pleasant, Pa.
Rumbaugh, Marie	Mt. Pleasant, Pa.
Sauerwein, Nelle	South West, Pa.
Schreiber, Josephine	Kersey, Pa.
Schreiber, Margaret	Kersey, Pa.
Schrot, Emma	Clearfield, Pa.
Schrot, Mary	Clearfield, Pa.
Scott, Frances	Clintonville, Pa.
Senior, Ada	Falls Creek, Pa.
Sewall, Dorothea	Mercer, Pa.
Shaffer, Jessie	Uniontown, Pa.
Shaffer, Kathryn	Wilmore, Pa.
Shaffer, Ruth	Wilmore, Pa.
Shaffer, Thore	Benezette, Pa.
Shaffer, Wilda	Mayport, Pa.

Shaw, Jean	Apollo, Pa.
Sherrer, Fern	Leisenring, Pa.
Schields, Mary	Livermore, Pa.
Shober, Etta	Garrett, Pa.
Shrall, Anna	Lilly, Pa.
Slade, Gertrude	Hazelhurst, Pa.
Sipe, Anna	Summerhill, Pa.
Smathers, Layton	Punxsutawney, Pa.
Smith, Maude	West Newton, Pa.
Spratley, Ada	Rochester, Pa.
Steffy, Mazie	Livermore, Pa.
Steile, Grace	Apollo, Pa.
Stephens, Nelle	Mt. Pleasant, Pa.
Strosser, Clare	Mercer, Pa.
Sullivan, Ruth	Vandergrift, Pa.
Swanson, Jennie	DuBois, Pa.
Swisshelm, Laura	Wilkinsburg, Pa.
Taylor, Esther	Sharpsville, Pa.
Thomas, Marjorie	Latrobe, Pa.
Tressler, Eva	Dunbar, Pa.
Turner, Gladys	New Castle, Pa.
Vaughn, Jennie	Hadley, Pa.
Vincent, Mae	Polk, Pa.
Wachter, Rose	Grampian, Pa.
Wagoner, Ellen	Norwich, Pa.
Wagoner, Gertrude	Norwich, Pa.
Walker, Gayle	Amity, Pa.
Walker, Iradelle	Worthington, Pa.
Wallace, Paul	New Florence, Pa.
Waltower, Margaret	Versailles, Pa.
Weaver, Helen	Grove City, Pa.
Weaver, Mary	Valier, Pa.
Weaver, Marylou	Spring Grove, Pa.
Weaver, Ruth	Mahaffey, Pa.
Weddowson, Sue	Penn Run, Pa.
Weinel, Agnes	Apollo, Pa.
Weiss, Lida	Punxsutawney, Pa.
Wells, Adelia	Johnsonburg, Pa.
Wetzel, Lulu	McGee's Mills, Pa.
Whelpley, Marie	Brockwayville, Pa.
Whisner, Mildred	Butler, Pa.
Wick, Hazel	Euclid, Pa.
Willaman, Rose	Transfer, Pa.
Wilkins, Anna	Erie, Pa.
Williams, Alice	Washington, Pa.
Williamson, Rose	Johnstown, Pa.
Winter, Lorena	Brockwayville, Pa.
Wittman, Nora	St. Marys, Pa.
Yeager, Pearle	Murrysville, Pa.
Yount, Irene	Midland, Pa.

Total, 284; Men, 10; Women, 274.

CONSERVATORY OF MUSIC

Graduates (Full Course Students)

PIANO TEACHERS' COURSE—TEACHING BEGINNING GRADE

Hodge, Pearl	Grove City, Pa.
Hutchins, Katherine	Mechanicsville, N. Y.
Ruffing, Marie	Grove City, Pa.
Turner, Gladys	New Castle, Pa.
Walker, Iradelle	Worthington, Pa.

Undergraduates

PIANO

Alter, Ruth	Anniston, Ala.
Caldwell, Agnes	Butler, Pa.
Clark, Grace	Simons, O.
Davidson, Marjorie	Evans City, Pa.
Foltz, Ruth	Grove City, Pa.
Forrest, Helen	Grove City, Pa.
Frew, H. M.	New Castle, Pa.
Gross, Aaron	Pittsburgh, Pa.
Hainley, Susan	Vandergrift, Pa.
Harmon, Anna	Grove City, Pa.
Henry, Marian	Grove City, Pa.
Hoover, Beatrice	Mechanicsville, N. Y.
Kelso, John	Avalon, Pa.
Kiser, Wilda	Conneautville, Pa.
McDowell, Sara	Kennerdell, Pa.
Moore, Marie	Mosgrove, Pa.
Myers, Avella	Jeannette, Pa.
Riegel, Pauline	Johnstown, Pa.
Robinson, Martha	Grove City, Pa.
Schaumberg, Ludwig	Grove City, Pa.
Snyder, Grace	Dickerson Run, Pa.
Snyder, Nellie	Dickerson Run, Pa.
Stevenson, Janet	Mt. Jewett, Pa.
Weeter, Lucille	Sligo, Pa.
Wood, Hazel	Grove City, Pa.
Total, 25; Men, 4; Women, 21.	

VIOLIN

Conklin, Jane	Washington, Pa.
Eakin, Isabelle	Washington, D. C.
Glasgow, George	Vandergrift, Pa.
Masters, Carl	Fern, Pa.
Pettis, Ruth	Cranesville, Pa.
Ritner, Bee	Bruin, Pa.

VOCAL

Alter, Ruth	Anniston, Ala.
Black, Lois	Grove City, Pa.
Burns, Arthur	Hilliard, Pa.
Clark, Grace	Simons, O.
Dills, Alma	Duryea, Pa.
Filer, Mrs. Harry	Grove City, Pa.
Gilson, William	Leechburg, Pa.
Goodwin, Frank	Oil City, Pa.
Gray, Lillian	Amity, Pa.
Hoover, Beatrice	Mechanicsville, N. Y.
Hoxworth, Norine	Canonsburg, Pa.
Jennings, Dorothy	Tidioute, Pa.
Jones, Alan	Corsica, Pa.
Ripple, Lorena	Austin, Pa.
Robinson, Ernestine	Grove City, Pa.
Schaumburg, Ludwig	Grove City, Pa.
Weeter, Lucille	Sligo, Pa.
White, Zella	Reynoldsville, Pa.
Younggren, Esther	Ridgway, Pa.

ORGAN

Allison, Mary	Grove City, Pa.
Henderson, Mary	Glen Richey, Pa.
Miles, D. E.	Plymouth, Pa.
Munnell, Ada	Mercer, Pa.

HARMONY

Alter, Ruth	Anniston, Ala.
Bowden, Clifford	Grove City, Pa.
Clark, Grace	Simons, O.
Gilson, William	Leechburg, Pa.
Gross, Aaron	Pittsburgh, Pa.
Henry, Marian	Grove City, Pa.
Hoover, Beatrice	Mechanicsville, N. Y.
Miles, D. E.	Plymouth, Pa.
Pettis, Ruth	Cranesville, Pa.
Weeter, Lucille	Sligo, Pa.
Wood, Hazel	Grove City, Pa.

ELEMENTS OF MUSIC

Clark, Grace	Simons, O.
Eakin, Isabelle	Washington, D. C.
Henry, Marian	Grove City, Pa.
Wood, Hazel	Grove City, Pa.

MUSIC HISTORY

Clark, Grace	Simons, O.
Eakin, Isabelle	Washington, D. C.
Gilson, William	Leechburg, Pa.
Gross, Aaron	Pittsburgh, Pa.
Henry, Marian	Grove City, Pa.
Hoover, Beatrice	Mechanicsville, N. Y.
Pettis, Ruth	Cranesville, Pa.
Weeter, Lucille	Sligo, Pa.
Wood, Hazel	Grove City, Pa.

DICTATION

Clark, Grace	Simons, O.
Eakin, Isabelle	Washington, D. C.
Gilson, William	Leechburg, Pa.
Glasgow, George	Vandergrift, Pa.
Gross, Aaron	Pittsburgh, Pa.
Henry, Marian	Grove City, Pa.
Hoover, Beatrice	Mechanicsville, N. Y.
Kiser, Wilda	Conneautville, Pa.
Pettis, Ruth	Cranesville, Pa.
Weeter, Lucille	Sligo, Pa.
Wood, Hazel	Grove City, Pa.

Intermediate Department

PIANO

Castle, Lucille	Grove City, Pa.
Castle, Mary	Grove City, Pa.
Cleeland, Mertie	Grove City, Pa.
Elder, B.	Grove City, Pa.
Emery, A.	Grove City, Pa.
Emery, N.	Grove City, Pa.
Emery, James	Grove City, Pa.
Hogue, Gerald	Grove City, Pa.
Winsberg, Lester	Grove City, Pa.

Model Department

Allison, Elinor	Grove City, Pa.
Graham, Charlotte	Grove City, Pa.
McCurdy, Geraldine	Grove City, Pa.
Montgomery, P.	Grove City, Pa.
Montgomery, Robert	Grove City, Pa.
Myers, Janet	Grove City, Pa.
Reed, S.	Grove City, Pa.
Shillito, Wallace	Grove City, Pa.
Smith, Delphine	Grove City, Pa.
Smith, Glendon	Grove City, Pa.
Vanderlin, Grace	Grove City, Pa.
VanEude, L.	Grove City, Pa.
Vincent, Dean	Grove City, Pa.
Sieplein, Cora	Grove City, Pa.
Wolford, Dorothy	Grove City, Pa.

Art Department

Carruthers, Mrs. H. M.	Grove City, Pa.
Guthrie, Mrs. John	Grove City, Pa.
Hosack, Ora	Grove City, Pa.
Miller, Mrs. E. F.	Grove City, Pa.
Spearman, Mrs. John	Grove City, Pa.
Whieldon, Lucille	Grove City, Pa.

SUMMARY

Collegiate Department

	MEN	WOMEN	TOTAL
Graduates, June, 1919	14	44	58
Post Graduates	4	2	6
Seniors	11	12	23
Qualifying Seniors	6	7	13
Juniors	13	14	27
Sophomores	30	24	54
Freshmen	136	10	146
Sub-Freshmen and Special	148	33	181

Secretarial Department

First Year	5	14	19
Second Year	4	19	23

Music Department

Graduates		5	5
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Undergraduates

Piano	4	21	25
Vocal	5	14	19
Organ	1	3	4
Violin	2	4	6
Harmony	4	7	11
Elements of Music		4	4
Music History	2	7	9
Dictation	3	8	11
Model Pupils	4	11	15

Intermediate Department

Piano	2	7	9
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Art

Undergraduates		6	6
Different Students, Fall 1918 through Summer 1919	397	460	857

INDEX

Absence Regulations	48
Admission	
Collegiate Department	19
Advanced Standing	32
Graduate Department	36
Music Department	109
Secretarial Department	30
Art Department	132
Archaeology, courses	73
Astronomy, courses	88
Athletics	107
Athletic Eligibility Rules	35
Bible, courses	63
Biology, courses	89
Boarding	44
Botany, courses	90
Buildings	43
Calendar	3
Chemistry, courses	80
Commencement Exercises, 1919	135
Commerce, courses	96
Committees of the Faculty	13
Committees of the Trustees	5
Degrees: Baccalaureate Requirements	23
Graduate Requirements	36
Departments of Instruction	50
Department: Philosophy	51
Psychology and Education	52
History, Economics and Government	56
English	61
Classical Languages	70
Modern Languages	76
The Sciences and Mathematics	80
Commerce	96
Military Science and Tactics	102
Athletics and Physical Training	107
Music	109
Art	132
Economics, courses	58
Education, courses	53
Endowments	41
Engineering, Chemical	26
Engineering, Preliminary Work	40

English, courses	61
Expenses	47
Faculty	
Administrative	13
Art Department	8
Bible School, 1919	11
Collegiate Department	6
Music Department	8
Summer Term, 1919	9
French, courses	78
General Information	38
Geology, courses	92
German, courses	76
Government, courses	59
Graduate Department	36
Grade Values	31
Greek, courses	69
History of the College	14
History, courses	56
Honors, Departmental	33
General	33
Information, General	38
Intercollegiate Contests	35
Latin, courses	68
Library Work	66
Masters' Degree	36
Mathematics, courses	92
Mechanical Drawing	89
Medicine, Preliminary Work	29
Music Department	
Admission	109
Bachelor of Music	110
Graduation, Three Year Course	112
Model Students	116
Orchestra	116
Organ, courses	124
Piano, courses	119
Regulations	116
Tuitions	112, 130
Violin, courses	121
Vocal course	120
Opportunities for	
Engineering Preparation	40
Medical Preparation	29
Religious Preparation	39
Teaching Preparation	39

Oratory, courses	64
Orchestra	116
Organ, courses	124
Philosophy, courses	51
Physics, courses	86
Plan of courses	24
Piano, courses	119
Psychology, courses	53
Rooms and Boarding	44
Romance Languages, courses	76
Roster of Students, 1918-19	137
Requirements for	
Entrance	19
Degrees	23
Graduate Degrees	36
Graduation in	
Art	133
Music, Three Year Course	112
Secretarial	30
Sanskrit and Indo-European Philology, courses	74
Secretarial course	30
Spanish, courses	79
Stenography	99
Student's Organization	44
Student Programs	32
Summer Sessions	38
Trustees	4
Tuition	
Collegiate	47
Graduate	37
Music, three year course.....	130
Music, Bachelor of	112
Art	134
Typewriting	100
Violin, courses	123
Vocal, courses	126
Zoology, courses	92

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